United States
Department of
Agriculture

Natural
Resources
Conservation
Service

In cooperation with
Cornell University
Agricultural Experiment
Station

Soil Survey of Essex County, New York

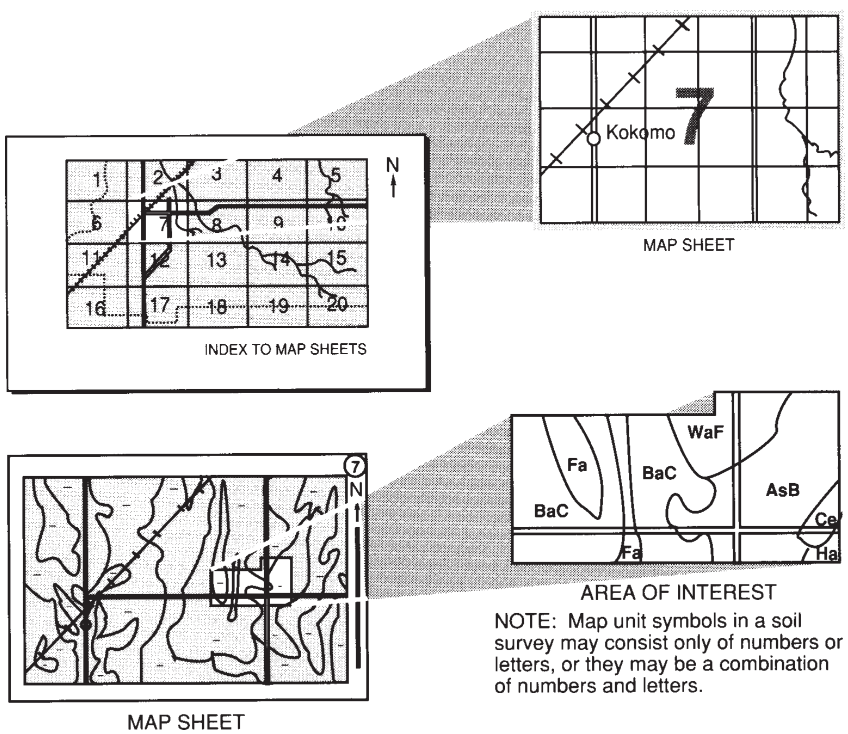
How To Use This Soil Survey

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



NOTE: Map unit symbols in a soil survey may consist only of numbers or letters, or they may be a combination of numbers and letters.

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 1999. Soil names and descriptions were approved in 2007. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1999. This survey was made cooperatively by the Natural Resources Conservation Service and the Cornell University Agricultural Experiment Station. The survey is part of the technical assistance furnished to the Essex County Soil and Water Conservation District. Partial funding for this survey was provided by the Essex County Soil and Water Conservation District and by the New York State Department of Agriculture and Markets.

Cover: View of Lake Placid from the summit of Whiteface Mountain looking southwest. In the foreground where slopes are covered with Red Spruce and Balsam Fir, the Ricker, Couchsachraga, Skylight, and Santanoni soils, and common rock outcrops dominate. On the mid-slopes, which have a mix of hardwoods and conifers, Mundalite, Rawsonville, and Hogback soils dominate. On the lower slopes around the lake, Becket, Tunbridge, and Lyman soils are common. On the low hilly areas and terraces in the village at the south end of the lake, Monadnock and Adams soils dominate. The western High Peaks Region including the Sawtooth, Nye, and Street mountains are in the background.

Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at http://www.nrcs.usda.gov.

Contents

Issued 2010

Foreword

This soil survey contains information that affects land use planning in this survey area. It contains predictions of soil behavior for selected land uses. The survey also highlights soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

This soil survey is designed for many different users. Farmers, ranchers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the survey to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the survey to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow to bedrock. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described. Information on specific uses is given for each soil. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Astor F. Boozer
State Conservationist
Natural Resources Conservation Service

Soil Survey of Essex County, New York

By Gerald W. Smith, Natural Resources Conservation Service

Fieldwork by Steven C. Carlisle, Shawn M. Finn, Dale S. Gates, Matthew W. Havens, Steven S. Indrick, Paul E. Konopka, Val J. Krawiecki, Stephen J. Page, Stefan T. Seifried, Mark H. Silverman, Gerald W. Smith, Edward R. Stein, Theodore D. Trevail, Natural Resources Conservation Service, and Brian F. Grisi, New York State Adirondack Park Agency

United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with Cornell University Agricultural Experiment Station

Essex County lies on the western shore of Lake Champlain in the northeastern part of New York State (fig. 1). The county is bounded on the north by Clinton County; on the south by Warren and Washington Counties; and on the west by Franklin and Hamilton Counties.

The county is mainly rural. It covers an area of 1,225,900 acres, or about 1,915 square miles (USDA Natural Resources Conservation Service, 2002). About 69,700 acres is census water. Elevations range from 95 feet at Lake Champlain (mean lake level) to 5,344 feet at the summit of Mount Marcy. Elizabethtown is the county seat and is situated in the eastern foothills area between the Adirondack High Peaks Region on the west, and the Champlain Valley on the east.

General Nature of the County

In 2000, the county had a population of about 38,851 and has more or less steadily grown since 1900 when the population was approximately 31,000 (US Census Bureau, 2000). About two thirds of the population resides within the hamlets and villages of the county.

Tourism and hospitality, forest products, mining, and agriculture are some of the more important industries in the county. Agriculture, at one time the most important industry in the county, has declined steadily since 1900 when total farms and land in farms was 2,274 farms with 359,008 total acres in farms, as compared to 2002 values of 236 farms with 55,022 total acres in farms, or roughly 5 percent of the county (US Census of Agriculture, 2002). Nearly half of sales from farms in the county were involved with production of dairy products. Other farm production includes hay and other crops, vegetables, orchards, nursery and greenhouse, and other miscellaneous products. Mining has also declined steadily since it began with European settlement, but NYCO Minerals still operates wollastonite mines in Lewis and Willsboro. Essex County is 92 percent forested, and of this, approximately 50 percent is private commercial forestland, and the remainder is Adirondack Forest Preserve (Craul, 1987). Several large industrial forestry firms still manage timberland in the county, and International Paper Company operates a paper mill in Ticonderoga. The Adirondack High Peaks Region, part of the Adirondack Forest Preserve, lies almost entirely within

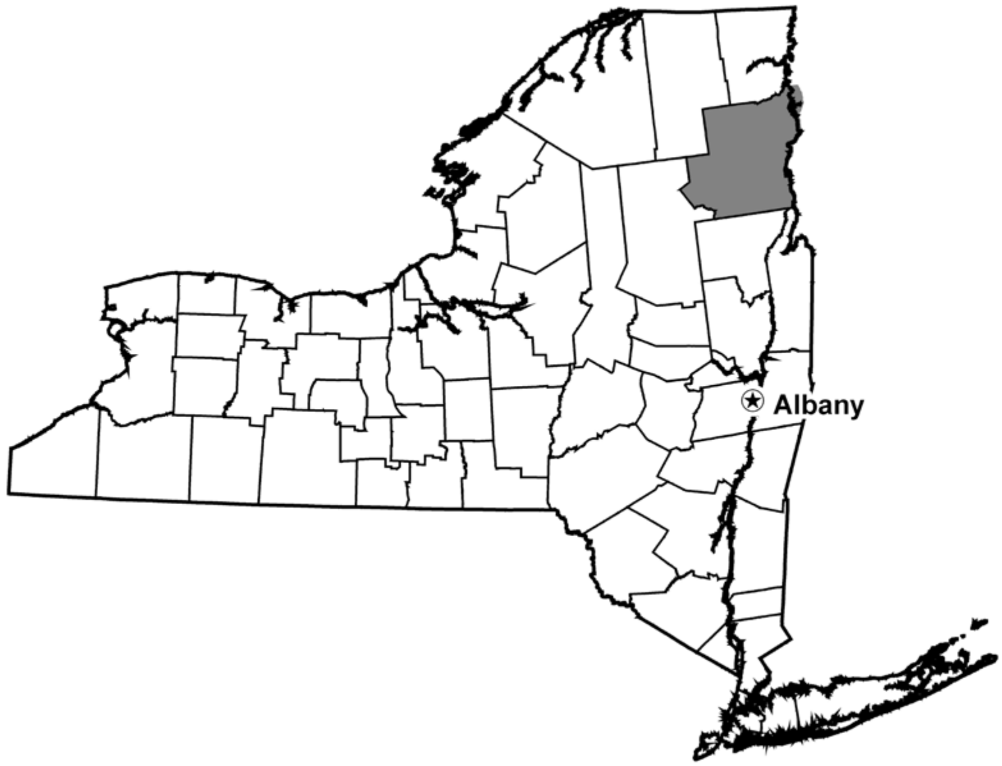


Figure 1.—Location of Essex County in New York.

Essex County and draws thousands of hikers, backpackers, skiers, artists, and others annually for a rich outdoor recreational experience. Other parts of the Forest Preserve contain nearly 80,000 acres of lakes, ponds, and rivers and offer excellent recreational fishing and hunting opportunities. The Village of Lake Placid, host of the 1932 and 1980 Winter Olympic Games, located just north of the Adirondack High Peaks Region is a popular four season resort area and host to thousands of visitors from around the world annually.

History and Development

The earliest inhabitants of the area we now know as Essex County were Paleoindians who migrated here shortly after deglaciation of the Champlain Valley about 11,300 years before present (BP). They were semi-nomadic, hunter-gatherers who presumably followed caribou, woolly mammoth, and other Pleistocene mega-fauna as they exploited the new periglacial, tundra-like grasslands. They camped along the shores of the “Champlain Sea”, an estuary of the Atlantic Ocean, which occupied the valley for a time after the ice sheet retreated north of the St. Lawrence River. This period of habitation lasted from approximately 11,300 to 9,000 years BP. Later habitation occurred during what is known as the Archaic Period between 9,000 and 2,900 years BP. This period is characterized by a warmer climate and a transition from grassland tundra to forested ecosystems, extinction of the mega-fauna, and migration north of other tundra dependant game species like the caribou. These people had to adapt to the new environment and new game species, and were also hunter-gatherers and fishermen, but evidence suggests they were less nomadic and established more permanent settlements along major streams and rivers entering the valley. The final pre-European period of habitation is known as the Woodland Period lasting from about 2,900 to 400 years BP. This period is characterized by establishment of

substantial settlements along flood plains of major streams and rivers as they entered the lake, and technological advancements such as agriculture, pottery, and metal tools. Subsistence patterns gradually changed to a mix of hunting, fishing, gathering, and early agriculture, leading to a more sedentary lifestyle. During this period, the development of familiar Native American cultures such as the Iroquois occurred. As the Woodland Period progressed, Lake Champlain became a boundary between the Iroquois people to the west, and the Western Abenaki people to the east. By the end of the Woodland Period, the Champlain Valley was home to the St. Lawrence Iroquois, the Western Abenaki, the Mahican, and the Mohawk peoples (Lake Champlain Maritime Museum, 2009). There is also evidence that late in the Woodland Period, the region was a contested area between the Five Nations Iroquois of central New York and Algonquin of the St. Lawrence and Ottawa River Valleys over access to hunting and fishing grounds. This conflict persisted into the time of European settlement over competition for the fur trade.

European contact in the area began with the French explorer Jacques Cartier in 1534, when he entered the mouth of the St. Lawrence River looking for the Northwest Passage. Cartier attempted colonization of the St. Lawrence Valley and laid the groundwork for the northern fur trade at this time. In July 1609, French explorer Samuel de Champlain, also seeking to develop the fur trade, entered the Champlain Valley and was the first European to see the lake that now bears his name, claiming the region for France (Lake Champlain Maritime Museum, 2009). With two of his men and a war party of Algonquin, Huron, and Montagnais peoples, they confronted and defeated a group of Mohawk Iroquois warriors at Ticonderoga, thus setting the tone for continued conflict in the region for the next two centuries. The discovery of a nearly complete water route from the St. Lawrence to the Hudson River was of great importance to the Europeans. The Dutch, led by explorer Henry Hudson, had claimed the lands north of Albany up into the Champlain Valley. Although both colonial powers never initially settled the land in the Champlain Valley, they were very interested in its resources, heavily involved in the fur trade, and dependant on the Native Americans in the valley to supply them with furs. During the first half of the seventeenth century, the Champlain Valley was a staging area for Mohawk Iroquois to launch raids on Native American and French settlements in the St. Lawrence Valley. Additional conflicts between the Mohawks and the Western Abenaki and Mahicans added to the instability of the region.

By 1664, the British had captured the colony of New Amsterdam (New York City), and had assumed all claims to territory held by the Dutch north of Albany, including the Champlain Valley. At this time, and continuing for the next one hundred years, the British with the aid of their Iroquois allies, battled the French and their Native American allies over control of the Champlain Valley and its environs. The French held control of the valley for most of this period establishing forts at Isle La Motte (Quebec) in 1666, Crown Point in 1690 (Fort St. Frederic), and at Ticonderoga in 1755 (Fort Carillon). Early on, conflicts mainly concerned the French defending against the British backed Iroquois who had been harassing them for some time. Later hostilities mirrored conflicts in Europe with no less than four wars occurring on some level in the region, ending with the French and Indian War from 1754 to 1763. In 1759, the British defeated the French at Fort Carillon, and by the following year had completely driven the French out of the valley (Lake Champlain Maritime Museum, 2009).

Very little European settlement had occurred prior to 1763, except adjacent to the forts, because of the turmoil. The first important settlement of Essex County was established by William Gilliland at the mouth of the Boquet River at Willsboro in 1765. Gilliland had acquired several thousand acres between the Boquet and Split Rock in Essex, and engaged tenants to clear the land for farming, and establish industries along the river. A similar settlement was being established by Samuel Deall along the La Chute River at Ticonderoga around the same time. Other early settlers were former

soldiers who had served in the valley during the wars and were granted land in return for their service (Smith, 1885).

This short period of stability was disrupted by the Revolutionary War (1775–1783), brought on by the European colonists' dissatisfaction with British rule. Increasing unrest by colonists from unreasonable taxes and general limitations of rights, eventually led to the battles of Lexington and Concord, Massachusetts on April 19 1775, and the start of the Revolution. Within a few weeks of these battles, Ethan Allen and Benedict Arnold attacked and captured Forts Ticonderoga and Crown Point in order to retrieve the British cannon for siege, and drive the British out of Boston. As a result of the battles at Ticonderoga, Crown Point, and St. Johns (Quebec), the Americans captured a number of warships and held control of the lake well into 1776. Throughout the year, the British and Americans built up their fleets in preparation for the Battle of Lake Champlain which took place off Valcour Island on October 11, 1776 with Benedict Arnold commanding the American fleet. The outgunned Americans were eventually driven back to Fort Ticonderoga after losing many ships, and the British now assumed control of the lake. The Americans worked to strengthen Fort Ticonderoga and Mount Independence in Vermont after the lake battle, but were driven out of both forts in July 1777 after the British hauled a cannon up the undefended Mount Defiance just south of Ticonderoga, and presented an insurmountable threat to the American forts. The British held control of the lake until the end of the war in 1783, and used it as a staging area to launch raids into the Hudson and Mohawk valleys for the remainder of the conflict (Lake Champlain Maritime Museum, 2009). Many settlements loyal to the Americans were abandoned and destroyed after the British regained control of the lake, including Gilliland's estate at Willsboro, and once again conflict served to suppress settlement of the region (Smith, 1885).

Just after the Revolution, only a few hundred people occupied the Champlain Valley, but by 1810, the population in the valley grew to over 140,000 people including entrepreneurs, land speculators, and new settlers (Lake Champlain Maritime Museum, 2009). The War of 1812 (1812–1815) resulted in one battle in Essex County, when a small British raiding party sailed up the Boquet River at Willsboro and were subsequently driven off by a local militia. The remainder of the conflict was restricted to the northern part of the lake around Plattsburgh and residents of Essex County served in these militias. The war disrupted a lucrative lumber trade with Canada for a brief period, but commerce resumed soon afterwards. When counties were established in New York State in 1683, Essex County was part of Albany County, an enormous county, including northern New York and all of Vermont. After several subdivisions, the New York part of Albany County was split into Albany and Charlotte counties in 1772. Charlotte County, which was later renamed Washington County, was subdivided into Washington and Clinton counties in 1788. Essex County was finally split from Clinton County in 1799.

Forest products became the most important early industry of the county, and use of the county's timber resources began with erecting forts and adjacent settlements in the Champlain Valley, and for the construction of warships and commercial vessels that plied Lake Champlain during the seventeenth, eighteenth, and early nineteenth centuries. Tree species of particular importance in ship building were red pine, white pine, red oak, red spruce, larch, and white cedar (Watson, 1869). Commercial shipyards were located in the villages of Willsboro, Essex, Crown Point, and Ticonderoga, and were viable until around 1875, when the completion of the west shore railroad marked the decline of the industry. As early settlers cleared the land for crops and pasture, excess wood not used for lumber and fuel was burned to produce potash and provided a readily available source of cash or credit (Bernstein, 1971). Hardwoods (beech, birch, maple, oak, cherry, and ash) were the best source, and ashes were leached for lye to produce soap, or boiled down to make potash for use in glass, ceramics, wool production, and fertilizer. Commercial asheries were developed

later on in at least nine of the towns in the county that cleared large areas of forest of hardwoods. Commercial lumbering expanded rapidly after the Revolution, and by 1850, every town in the county had established numerous sawmills producing lumber for local consumption and export (Smith, 1885). Intensive harvesting operations started in the towns along Lake Champlain and worked into the interior of the county. From 1800 until 1824, Canada was the primary market. Timber was cut in the winter, and whole logs banked along rivers for spring drives, or sawn into lumber at local mills and sledded by horse teams to points along the lake. In the spring, sawn lumber was made into cribs or rafts, and piled on top of huge log rafts or towed behind them and sailed north up the lake, then down the Richelieu River to Quebec. Pine and Oak were the most valuable with many ship timbers exported to English shipyards across the Atlantic (Smith, 1885). In 1824, the Champlain Canal opened the markets south to Albany and New York City and the lumber trade increased dramatically. Pine and oak were the most sought after species, followed by spruce, hemlock, and northern hardwoods (Defebaugh, 1907). Canal boats shipped rough and finished lumber, staves, shingles, lath, and other milled products to urban markets, and logs were rafted down the canal to mills along the Hudson River. By 1840, most of the old growth timber used for lumber production had been cut over in the towns bordering Lake Champlain. About the same time, the interior towns, particular Newcomb, North Hudson, Minerva, and Schroon, were just approaching their peak in timber harvesting for lumber production. Some timber was sawn at local mills and used for construction and export, but most of it was transported to downstream mills in spring log drives. Logging was a seasonal occupation with timber being felled, skidded by horse, and piled onto skidways in the late summer and fall. During winter, the logs were hauled by horse teams and sleds to the banking grounds adjacent to rivers, lakes, and ponds, and in spring driven down the rivers running full from the spring snow melt (Welsh, 1995). Red Spruce, white pine, and eastern hemlock were the more important timber species initially being driven down the Schroon and Hudson Rivers and their tributaries. Sawtimber production in the Upper Hudson watershed peaked in 1872 with 189,940,392 board feet (about 2 million logs) reaching the great sorting boom above the mills in Glens Falls (Defebaugh, 1907; Welsh, 1995). New York State led the nation in sawtimber cut in 1850 (Welsh, 1995). Charcoal making was a very important industry during the first half of the nineteenth century. Forges that processed the iron mined in Essex and adjacent counties were established in every town in the county except one (Smith, 1885). “Colliers” manufactured the charcoal that fired the iron forges from nearby hardwood forests of beech, maple, birch, oak, ash, cherry, and hickory. Charcoal burned hotter and cleaner than wood, and was produced by slowly heating the hardwood in the absence of oxygen (pyrolysis), in earthen or brick kilns, driving off moisture and other volatile materials, leaving almost pure carbon (char). Larger forges required a great deal of charcoal, and huge areas were almost completely stripped of timber for production (Welsh, 1995). Charcoal production continued throughout the county from 1800 until the early 1850s when it started being replaced by imported coal from Pennsylvania mines, although some literature suggests that charcoal fired forges operated until the 1870s (Spaulding, 1874). Tanneries existed in the towns of Ticonderoga, Willsboro, Chesterfield, Schroon, Essex, Lewis, Westport, Minerva, and North Hudson and consumed enormous quantities of hemlock bark in their operations. In late spring and early summer, hemlock trees were felled, girdled at 4 foot lengths, and the bark pealed and stacked for shipment (Welsh, 1995). The bark was finely ground and boiled down to extract the tannins, and hides were then soaked in the tanbark liquor. Raw hides for tanning were shipped from the western United States and from South and Central America. Tanneries operated in the county from the 1840s until the 1870s. By the 1870s, the lumber industry was in sharp decline and the pulp and paper industry began its ascension as diameter classes of remaining old growth timber grew smaller, and stands of second growth timber became available. It is notable that

one of the first tree species used in pulp and paper production was yellow poplar, a second growth timber species that was able to naturally revegetate many of these areas cleared for potash and charcoal production, and then grow large enough for pulpwood harvesting by the 1870s (Smith, 1885). Other important pulp species early on were red spruce, balsam fir, and white pine. The Ticonderoga Pulp and Paper Co. and the Glens Falls Pulp Co. both established mills in Ticonderoga in the late 1870s. Both mills were later acquired by the International Paper Co., and in 1968 the mill moved to its present location north of Ticonderoga on Lake Champlain. For years pulpwood was harvested from their own lands and transported to these mills by water, sled, and rail, and later by truck. International Paper currently utilizes a combination of hardwoods and softwoods in the paper making process. The Champlain Fibre Company was established in Willsboro in 1881 and operated until the early 1960s. It initially produced a "dry chemical fibre" (pulp) from yellow poplar harvested from the towns of Willsboro and Lewis (Smith, 1885). The J. J. Rogers Paper Mill was established in Ausable Forks in 1903, and operated until 1971. Much of their pulpwood came from the Ausable River watershed in river drives initially. Finch, Pruyn, and Co. began buying up timberland in the Upper Hudson Basin after 1865, and continued to transport pulpwood in log drives down the Hudson and its tributaries to their mill in Glens Falls until 1950. New York State led the nation in pulpwood production in 1912 (Welsh, 1995). By the 1870s, concern about the condition of forest resources in the Adirondacks by conservation groups led to discussions of preservation. Poor logging practices, land clearing for charcoal and potash manufacturing, subsequent fires, and accelerated soil erosion and sedimentation of streams led to watershed and fisheries degradation, and aesthetically displeasing landscapes in some areas. In 1872 the Commission of State Parks was formed to study the forests condition in the Adirondacks, and in 1885 the Forest Preserve was created. Seven years later, in 1892, the Adirondack State Park was established, and in 1895 "forever wild" legislation prohibited sale, lumbering, or development of any kind on current state-owned lands, and any new lands added to the Forest Preserve within the "Adirondack Park".

Agriculture did not become commercially important in Essex County until lumbering began to slow down, probably sometime in the mid 1800s. There are reports that shipments to Canada of area cattle, beef, pork, butter and cheese were being made as early as 1811 (Cunnion, 1991). Early commercial agricultural products included milk, butter, cheese, beef, wool, wheat, rye, corn, oats, beans, barley, buckwheat, clover seed, flax, maple sugar, beeswax, and honey (US Census of Agriculture, 1850). Land in farms grew steadily from just after the Revolution until 1870 when total land in farms was 456,538 acres, of which 236,000 acres was "improved" farmland, distributed over 2,424 farms. Improved farmland is land in cropland, hayland, or pasture, and the 236,000 acres (20 percent of the county) probably represents the maximum acreage of the county that was ever cleared and developed for agricultural production. By stark contrast, the 2002 Census of Agriculture data shows 55,022 total acres of land in farms, of which 28,731 acres is classified as cropland, distributed over 236 farms. The most dramatic loss of farmland seems to have occurred between 1950 and 1960 when land in farms dropped from 196,741 acres to 126,717 acres, and farm numbers dropped from 1,156 to 529. Historically, the most important agricultural commodities produced in Essex County have been dairy products, wool, wheat, corn, forage crops, birdsfoot trefoil seed, apples, potatoes, and maple sugar. Raising sheep for wool was a very important enterprise in the county from 1850 until around the turn of the century, and may have accounted for a great deal of marginal stony ground being developed for pasture throughout the county, most of which has reverted back to woodland. The table on page 7 shows an interesting snapshot of acres of "improved" farmland reported for various towns in 1870 and 1930. Note that during that period, some towns had abandoned nearly two thirds of their improved farmland. Employing machinery for tillage and transportation instead of horses after the turn of the century, may also have accounted for the abandonment of a great deal of marginal pasture and hayland.

"Improved" Farmland Reported of Selected Towns
US Census of Agriculture

Town	Approximate Total Acres	1870	1930
Chesterfield	66856	21029	6453
Crown Point	52195	20919	8277
Elizabethtown	52980	---	2575
Essex	24024	17471	9862
Jay	43938	22418	7973
Keene	99583	---	3091
Lewis	54117	24662	5696
Minerva	103499	---	1809
Moriah	45490	15014	5837
Newcomb	14860	---	734
North Elba	99853	---	3679
North Hudson	116943	---	772
St. Armand	36666	---	852
Schroon	90168	---	2043
Ticonderoga	56246	17276	8457
Westport	42680	18504	8641
Willsboro	46758	20044	7313
Wilmington	41765	---	2412

Sheep production reached its peak in 1870 with nearly 63,000 head reported. This same year, New York State ranked second in the nation behind Ohio in sheep numbers, and Essex County ranked ninth in the state (US Census of Agriculture, 1870). As interest in wool production waned, mainly due to failing markets, dairy production steadily increased, reaching a peak in 1900 with 11,266 dairy cows reported. After 1900, dairy production steadily decreased with about 1,983 dairy cows reported in 2002. For years after the arrival of the early settlers, wheat was the predominant crop in Essex County, as well as the entire Champlain Valley. The average yield was about 25 bushels per acre. Wheat production peaked in the county with about 70,000 bushels harvested in 1860, with Willsboro, Essex, Crown Point, and North Elba being the highest producing towns (Cunnion, 1991). Production rapidly dropped and by 1900 was less than 1,600 bushels for the entire county (US Census of Agriculture, 1900). In 2002, about 6,740 bushels of wheat were produced. Corn and hay crops became important feed and forage for dairy cattle. Corn for grain at first was grown, and then later on corn silage production took over. During the 1940s growing birdsfoot trefoil for seed became a hot item in the county. It was called "brown gold" and "the Cinderella crop" because of the excellent profits it afforded. The production peaked in 1957, but by the 1960s the boom collapsed due to domestic and foreign competition and blights (Cunnion, 1991). Apples were also an important crop produced in the county with 128,251 trees reported by 1900. In 2002 there were 8 farms with orchards located primarily in Chesterfield and Crown Point. Irish potatoes were an important vegetable crop early on with 411,777 bushels reported in 1860. Only 3 farms reported production in 2002, mostly south of Lake Placid. Maple sugar production was important to early settlers for generating cash, and peaked in 1889 with 161,169

pounds reported (Cunnion, 1991). Maple syrup is still produced in the county with 28 sugar bushes reporting 4,845 gallons of syrup produced in 2002.

Mining was a very important part of the county's development. The earliest accounts tell of Phillip Skene mining exposed beds of iron ore just north of Port Henry village in 1766 (Essex County Historical Society, 2009). One of the oldest iron works in Essex County was established at New Russia in 1802 and operated until about 1866. The ore used was obtained from the New Russia mine and from the Fisher Hill Ore Bed. Major James Dalliba and John Dickenson erected the first furnace at Port Henry in 1822, obtaining the ore from a vein nearby. The Town of Moriah was a major producer of iron ore for many years. Mines were privately owned until 1850. Then the Witherbee, Sherman Company acquired the mines in 1851 and operated them until 1938, eventually becoming the largest producer of iron ore in the nation prior to World War II. The Republic Steel Corporation then acquired the mines in 1938, and operated them until 1971. The MacIntyre Development began near Tahawus, in the Town of Newcomb, when iron ore was discovered in 1826. MacIntyre and his partners started producing iron in 1838 and continued until 1855 when financial problems resulting from transportation difficulties, and costs of separating large amounts of titanium in the ore shut them down. An attempt to revive the operation in 1894 by the MacIntyre Iron Company was unsuccessful after only 20 years, and in 1941 the National Lead Company acquired the deposits and operated the mine until 1982. Ilmenite, the titanium bearing mineral that had been such a problem to the previous owners, had become the focus of the operation, and the site became one of the world's largest titanium mines, with iron just a co-product. Titanium oxide became important as a pigment in many products, and as a main ingredient in the production of chemical smokes used in warfare. In the town of Crown Point, iron ore was discovered in 1821 and developed by Charles Hammond, and again in 1826 near Ironville and developed by Allen Penfield. The work of these two men eventually led to the establishment of the Crown Point Iron Company. The operation produced iron ore until 1893, and was noted for being the site of the first industrial application of electricity being employed in the ore separating process (Allen, 1967). Wollastonite was first discovered in 1810 in the town of Willsboro, but mining and processing of the mineral did not gain momentum until Koert Burnham began to develop deposits in Willsboro shortly before World War II. One of the first applications was the manufacture of electric insulators for use on the Manhattan Project (Cunnion, 1985). Northern Minerals was established just after the war, and in 1979, NYCO Minerals assumed operation of the mines and processing center in Willsboro. NYCO Minerals still produces wollastonite today, which is used in paints and coatings, construction and welding materials, ceramics, and automotive parts. Graphite was discovered on Lead Hill in the town of Ticonderoga in 1815, which was used in polishes, and eventually the manufacture of the familiar Ticonderoga pencil by the American Graphite Company. Quarrying has also been a notable venture in the county's history in the towns of Willsboro, Essex, and Jay. In 1869, S. W. Clark and Company's limestone quarry on Ligonier Point in the town of Willsboro supplied foundation stones for New York's state capitol building, and stone for piers of the Brooklyn Bridge (Essex County Historical Society, 2009).

Tourism has also been important to the development of Essex County. Keene Valley, Lake Placid, and Saranac Lake have been hosting visitors since the late 1800s to experience the beauty of the Adirondack's mountains and lakes. Grand hotels were established in several locations around the county in the late nineteenth century including the Leland House on Schroon Lake, the Deer's Head Inn and Windsor Hotel in Elizabethtown, and the Lake Placid Club and Grand View House in Lake Placid. Newcomb was the home of two of the “Adirondack Great Camps”: Santanoni and the Huntington Estate (now the Adirondack Ecological Center). Camp Dudley, the oldest operating YMCA camp in the nation, was established on Lake Champlain south of Westport in 1891 (Essex County Historical Society, 2009). Wilderness resorts such

as the Elk Lake Preserve (now Elk Lake Lodge) in the town of North Hudson, the Adirondack Mountain Reserve (now the Ausable Club) in the town of Keene, and the Tahawus Club in the town of Newcomb were established around the beginning of the twentieth century. In 1870, Ausable Chasm on the Ausable River north of Keesville, began operation as a tourist attraction (Essex County Historical Society, 2009). Several art and music schools were established in the early to mid 1900s which still operate today, including the Seagle Colony in Schroon Lake, the Old Mill Art School in Elizabethtown, and the Meadowmount School in Lewis. In the 1940s and 1950s, during the heyday of the "theme park", several parks were established in the county including "Santa's Workshop" in Wilmington which is still in operation, Arto Monaco's "The Land of Make Believe" in Upper Jay, and "Frontier Town" in North Hudson.

Transportation and Industry

Travel in Essex County is served along its eastern edge by Interstate 87, US Route 9, Amtrak rail line, and Lake Champlain. Interstate 87 (also known as the Adirondack Northway) runs north from Albany, NY through Keeseville and Plattsburgh, NY to the US-Canadian border, and connects via the Canadian highway system to the city of Montreal, Quebec. The railroad, which runs adjacent to Lake Champlain in Essex County, consists of both the Amtrak New York City to Montreal, Quebec passenger service, with stations at Ticonderoga, Port Henry, Westport, and Port Kent; and the freight service owned by Canadian-Pacific Railroad. Maritime service connects Lake Champlain to the Hudson River and Albany, NY via the Champlain Canal on the south, and to the St. Lawrence River and Montreal, Quebec on the north via the Richelieu River and Chambly Canal. Ferry service across Lake Champlain from Essex County to Vermont connects Burlington, Vermont to Port Kent, New York and Charlotte, Vermont to Essex, New York. Local routes running along Lake Champlain consist of NYS Routes 22 and 9N. US Route 9 runs roughly parallel to the Adirondack Northway south to north from Schroon Lake to Keeseville. Travel routes to points in the western part of Essex County are split by the Adirondack High Peaks Region. In the southern part of the county, NYS Route 74, the Blue Ridge Road, and NYS Route 28N connect Ticonderoga to Schroon Lake and Newcomb. In the central part of the county, NYS Routes 9N, 73, and 86, connect Westport to Elizabethtown, Keene, Lake Placid, and Saranac Lake. In the northern part of the county, NYS Routes 86 and 9N connect Saranac Lake to Lake Placid, Wilmington, Jay, and Ausable Forks.

The economic base of Essex County is still to a large degree dependant on its natural resources. Tourism and hospitality account for a major portion of the employment within the county. Natural attractions such as the Adirondack High Peaks Region, over a half a million acres of New York State Forest Preserve lands, nearly 77,000 acres of lakes and ponds distributed over 390 water bodies, and approximately 200 miles of scenic rivers help to draw nearly three quarters of a million visitors annually to the county. Nearly 20 percent of the private workforce is employed in accommodation and food services, arts, entertainment, recreation, rental and leasing, retail sales, and all supporting at least in part the tourism economy (SUNY Potsdam, 2004). Historical attractions such as Fort Ticonderoga and Fort Crown Point along Lake Champlain, and the John Brown Farm near Lake Placid also support the local economy. The Olympic Regional Development Authority operates the Whiteface Mountain Ski Center, the Olympic Arena, Bob Sled Run and Ski Jumps, and Olympic Training Facility in Lake Placid, which all contribute to the local economy. The New York State Department of Environmental Conservation administers ten public campgrounds and numerous boating and fishing access sites throughout the county.

The forest products industry is also an important part of the county's economic base. Timber harvesting for lumber, and wood pulp for paper products, occur on over half a million acres of private forest lands, of which about 17 percent is large industrial forest land holdings. Forest products account for about seven percent of the private

workforce including loggers, foresters, lumber mill operators, specialty products manufacturers and furniture makers, retail and wholesale forest products outlet operators, and one paper mill which employs about 700 workers (Essex County IDA, 2009). Important paper producing tree species include sugar and red maple, yellow birch, beech, red oak, and white pine. Saw timber for lumber that is harvested in the county mainly consists of white pine, red pine, red oak, black cherry, white ash, and sugar maple. Due to uncertain energy prices, demand for firewood is growing rapidly. Hardwoods make the best firewood and include cherry, oak, beech, maple, birch, and hop hornbeam. Examples of specialty products produced in Essex County forests are fence posts from eastern white cedar and ginseng.

Agriculture is an important part of Essex County's economy and consists primarily of dairying. In 2002 there were 236 farms on 55,022 acres of land, representing about five percent of the land area of the county. Average farm size was about 233 acres (US Census of Agriculture, 2002). Most of the active agricultural land is located in the Champlain Valley along the eastern edge of the county. Dairy farms with some small vegetable operations are distributed throughout the valley, and two major apple growing areas lie in the towns of Chesterfield and Crown Point. Some dairying and vegetable crops are grown in the Ausable River valleys (west and east branches), and potatoes are grown on the gently sloping till plains south of Lake Placid. Leading agricultural products include dairy products, hay and other crops, vegetables, orchards, nursery and greenhouse, and other products (NYASS, 2002). Although farm employment made up less than one percent of the workforce, it accounted for 8.5 million dollars in sales in 2002.

Mining in the county was more widespread in the past. Current operations include wollastonite mining in the towns of Willsboro and Lewis, quarrying for dimension stone in the town of Jay, sand and gravel extraction from glacial outwash deposits scattered throughout the county, and some reprocessing of mine tailings for aggregate in Newcomb.

Retail sales, construction and development, financial and legal services, professional and technical services, small scale manufacturing, and other kinds of industries and institutions all contribute to the local economy. Other important employment in the public sector includes town, county, and state government, state and federal corrections institutions, health care facilities, and educational institutions.

Physiography and Geology of Essex County

Dr. David A. Franzi, Professor of Geomorphology at the State University of New York in Plattsburgh, prepared this section.

Physiography

Most of Essex County lies in the Central Highlands section of the Adirondack Mountains (Isachsen, et al., 1991). The Adirondack Mountains are an upland region of moderate to high relief that is underlain by high-grade middle Proterozoic metamorphic rocks. Cressey (1977) further differentiated the upland into the Adirondack Mountain Peaks, where mountain summits exceed 900 meters (~3000 ft) and the surrounding Adirondack Low Mountains. The Adirondack Mountain Peaks section in Essex County includes Mount Marcy (1,629 m, 5,344 ft), the highest peak in New York, and all but four of the 46 highest peaks in the Adirondack Mountains. Much of this region is underlain by the Marcy anorthosite massif (McLelland and Wong, 2008). Local relief in this section exceeds 600 meters (~1950 ft), nearly double that typically found in the Adirondack Low Mountain section.

The Adirondack Upland is a structural dome, a roughly circular uplifted region in which the original sedimentary rock cover has been removed by erosion. Exhumation (unroofing) of the Adirondack dome accompanied uplift and continues to the present day. Widespread unroofing probably began in the middle Jurassic as evidenced

by apatite fission-track (AFT) and uranium-thorium/helium ((U-Th)/He) ages from metamorphic rocks in the region, and continued through the late Cretaceous (Roden-Tice and Tice, 2005). AFT age discontinuities between the Adirondack High Peaks region and the southeastern portion of the upland further suggest that differential unroofing may be related to fault reactivation (Roden-Tice and Tice, 2005).

The easternmost portion of the county lies in the St. Lawrence-Champlain Lowlands (Isachsen, et al., 1991; Cadwell, et al., 2003) or the Champlain Lake Plain Section of Cressey (1977). The former shoreline of the Coveville Stage of proglacial lake Vermont (Franzi, et al. 2007) provides a functional boundary between upland and lowland regions. The Coveville shoreline rises from about 157 meters at the Street Road delta in Ticonderoga to 202 meters at the Clintonville delta in the AuSable valley (Kemp and Alling, 1925; Chapman, 1937; Rayburn, 2004; DeSimone, et al., 2008). The lowlands are underlain by middle Proterozoic metamorphic rocks, lower Paleozoic sedimentary rocks and unconsolidated glacial and post-glacial sediment. The upland-lowland boundary is commonly marked by a pronounced change in slope associated with abrupt changes in bedrock lithology along fault-line scarps. In some areas, however, the boundary terrain is characterized by low hills underlain by metamorphic rocks that are surrounded by gently rolling plains underlain by late-glacial lacustrine deposits. Steep upland terrain extends eastward to the shoreline of Lake Champlain near Trembleau Mountain, Willsboro Bay, Split Rock Mountain, Bulwagga Bay and Ticonderoga. Local relief in the lowlands generally ranges from a few meters to a few tens of meters. The lowest elevation in the county is 29 meters (95 ft) at the Lake Champlain shoreline. The lowest elevation below Lake Champlain is approximately 93 meters (305 ft) below sea level near Split Rock Point.

The sedimentary strata in the lowlands flanking the upland dip gently away from the center of the Adirondack dome. Modern drainage patterns are strongly influenced by regional geology and structure. Drainage is generally radial off the dome and tangential in the peripheral lowlands (Ruedemann, 1931; Morisawa, 1985). Parts of three regional drainage systems, Lake Champlain, Hudson River and St. Lawrence River systems lie within Essex County (fig. 2). More than 60 percent of the county drains to the north and east to Lake Champlain and ultimately to the St. Lawrence estuary via the Richelieu River. The principal watersheds in the Lake Champlain basin are the AuSable and Boquet, which originate near the Champlain-Hudson divide in the High Peaks and flow northeastward to Lake Champlain at Keeseville and Willsboro, respectively. The northwestern portion of the county drains to the Saranac watershed and several smaller basins drain directly to Lake Champlain south of Westport. The Hudson River originates in the High Peaks region north of Tahawus and flows generally southward to its confluence with Indian River. From this point, the river flows southeastward forming the southern boundary between Essex and Hamilton counties for a distance of about 21 kilometers. The river leaves the county at North River near the intersection of Essex, Hamilton and Warren counties. Principal tributaries to the main channel of the Hudson River include the Opalescent, Newcomb, Goodnow, Cedar and Boreas rivers. The eastern portion of the Hudson River watershed in Essex County is drained by the Schroon River, which joins the Hudson in Warrensburg. The upper reaches of the Raquette River drain two small areas of the county west of the Santanoni Mountains and northwest of the Fishing Brook Range. These areas represent the only parts of the St. Lawrence drainage system in Essex County and account for less than 5 percent of the county's surface water drainage.

Bedrock Geology

The metamorphic rocks in the Adirondack uplands of Essex County were formed during the Grenville Orogenic Cycle (McLelland et al., 1996), which consisted of three major Mesoproterozoic mountain-building episodes (orogenies) between about 1350–1000 million years BP (fig. 3). Most consist of severely deformed, granulite

Figure 2.—Physiographic subdivisions and principal drainage basins in Essex County.

facies metaigneous rocks, such as tonalitic, granitic, charnockitic and anorthositic gneisses. The Marcy anorthosite massif underlies most of the region and accounts for the highest and most rugged terrain in Essex County. The Marcy massif consists of anorthosite, mafic anorthosite, leucogabbro and gabbro that were emplaced between about 1160–1150 million years BP. The anorthositic rocks were most likely derived from mantle melts while related and coeval mangerites, charnockites and granites are probably due to crustal melting associated with anorthosite emplacement (McLelland, 2008). Early mountain building culminated during the Ottawan Orogeny (around 1100-1000 million years BP) when the rocks of the present Adirondack region were involved in a Himalayan-style continental collision between Laurentia (early North America) and Amazonia (early South America). The suturing of these continents and other Mesoproterozoic landmasses resulted in the assemblage of the supercontinent Rodinia. Regional granulite-facies metamorphism associated with this orogenic event probably occurred at crustal depths exceeding 25 kilometers (Bohlen et al., 1985; McLellend et al., 2001) and over-printed much of the evidence for earlier events (McLelland et al., 1996). Prolonged post-orogenic exhumation exposed the metamorphic core complex by the end of the Neoproterozoic.

Rifting of Rodinia began at the end of the Neoproterozoic, resulting in the formation of the Iapetus Ocean. Lower Paleozoic sedimentary rocks record transgression of the Iapetus shoreline onto the rifted margin in what is now northeastern New York (fig. 4). The middle Cambrian Potsdam Formation forms base of the sedimentary sequence in Essex County (Landing, 2007). The nonconformity between the Mesoproterozoic basement rocks and the lower arkosic sandstone and conglomerate unit (Ausable Member) of the Potsdam Formation spans more than 500 million years and is well exposed in roadside outcrops along Route 22 in nearby Warren County (Selleck, 2008). In northern Clinton County, the Potsdam Formation conformably underlain by the Altona Formation, a newly defined late-early to middle Cambrian sandstone,

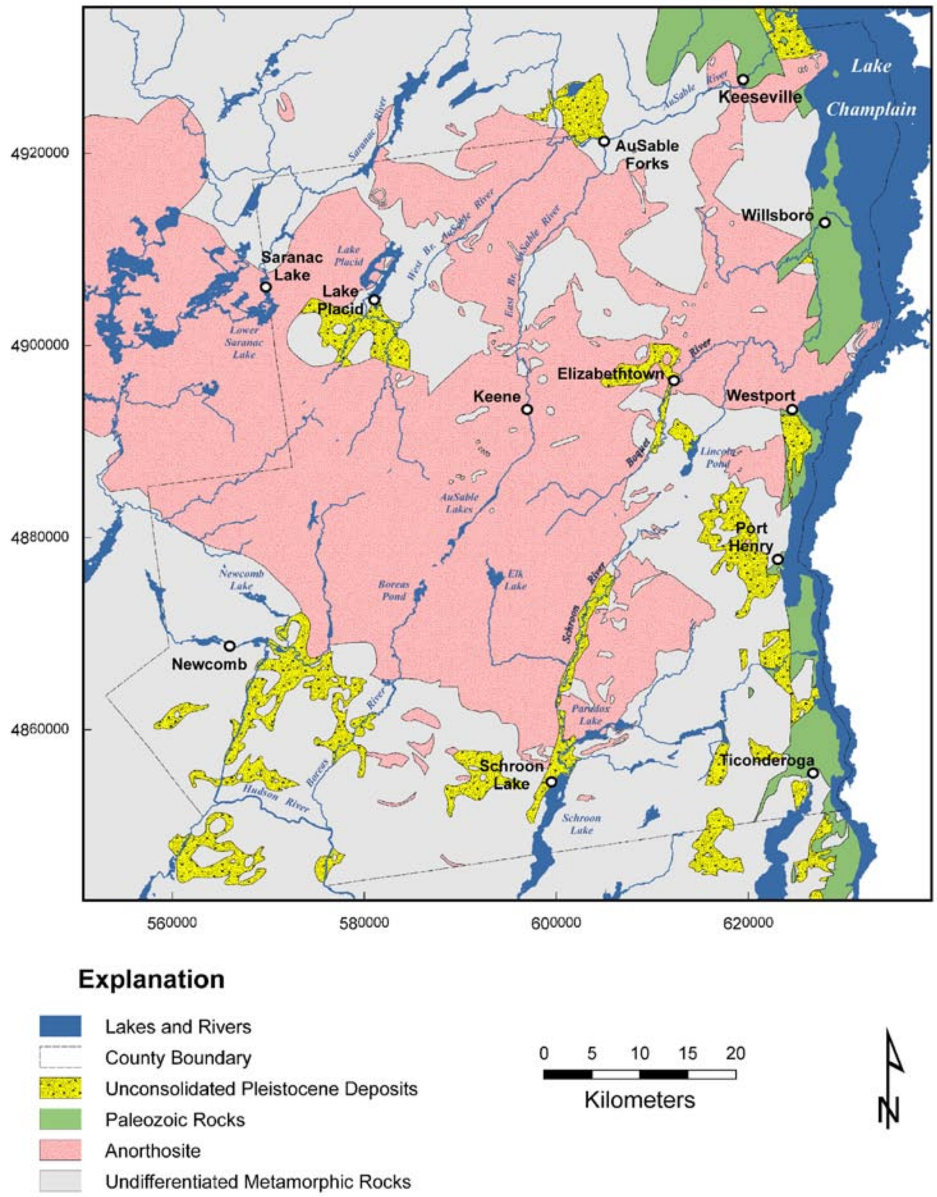


Figure 3.—Generalized bedrock geology of Essex County (from Isachsen and Fisher, 1995).

shale and dolostone unit (Landing et al., 2009, in press), thus, Cambrian marine onlap along the Laurentian margin in northeastern New York was asynchronous. The Potsdam Formation is overlain, in ascending order, by the upper Cambrian to middle Ordovician Beekmantown Group (predominantly carbonates), middle-upper Ordovician Chazy Group (carbonates) and the upper Ordovician Black River (carbonates) and Trenton (carbonates and shale) groups (Isachsen and Fisher, 1995; Landing et al., 2007). Lower Paleozoic sedimentary rocks in Essex County are restricted to a narrow (generally less than 5 km wide), discontinuous, typically fault-bounded outcrop belt along the shoreline of Lake Champlain.

Economic mineral deposits occur throughout the Adirondack Upland in Essex County. Iron-bearing ore deposits in the region have been mined since the early

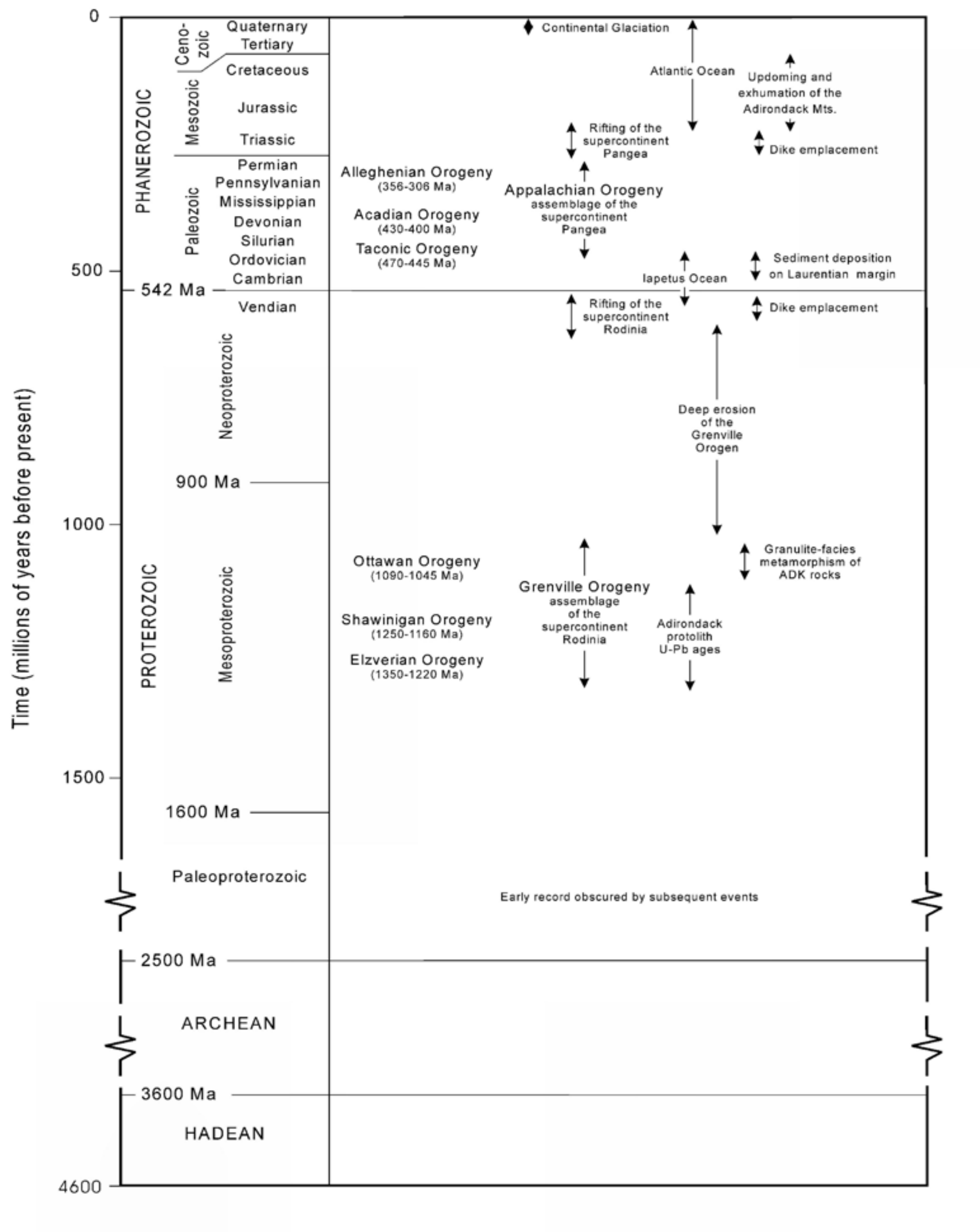


Figure 4.—Timeline for geological events in northeastern New York.

nineteenth century (Dawson et al., 1988; Lupulescu and Pyle, 2008). The most productive iron-mining district was the Mineville–Witherbee complex in Moriah (Dawson et al. 1988) where magnetite was the primary ore mineral. Mines in the Black Brook, Cook Mountain, Arnold Hill and Palmer Hill area, supported the iron industry in the Ausable Valley (Postel, 1952; Whitney and Olmsted, 1993). The mining industry in Essex County peaked during and immediately after the Civil War but began to decline by the end of the century. Only the mines in the Mineville–Witherbee–Fisher Hill area remained active into the early twentieth century (Dawson et al. 1988) and these were ultimately closed in 1971 (Lupulescu and Pyle, 2008). Mining operations at Tawahus began in the early nineteenth century for magnetite (Darling and Kelly, 2008) but these early operations were at best marginally successful because of the high ilmentite content of the ore (Isachsen et al., 1991). National Lead Company reopened

the mine during World War II for the mineral ilmentite from which titanium oxide was extracted. Mining at Tahawus ended in 1982 and the site was reclaimed in 2005-2006 (Darling and Kelly, 2008). Wollastonite skarn is associated with metanorthosite in an approximately 22 kilometer-long zone between Willsboro and Lewis (Whitney and Olmsted, 1993; Peck and Bailey, 2008).

Wollastonite has many commercial applications including its use as a ceramic base, welding flux, alloying agent, plastics extender, paint pigment and a substitute for asbestos. Although wollastonite deposits were identified in the mid-nineteenth century, commercial mining did not commence until 1953 near Willsboro. Mining operations shifted from the Willsboro mine to an open-pit near Lewis in the early 1980s. Presently, NYCO produces wollastonite from the Lewis mine and plans future production at the Oak Hill mine.

Glacial Geology

Cadwell and Pair (1991) provide the most comprehensive compilation of surficial materials in the region to date. Surficial deposits are essentially nonexistent on most Adirondack high peaks but exceed 30 meters in thickness at some locations in upland valleys and the Champlain Lowland. Relatively thin (generally < 5 m thick) deposits of till and colluvium mantle upland slopes throughout the Adirondack Upland. Till deposits commonly overlie polished bedrock surfaces that may contain ice-flow direction indicators such as striations, friction cracks and crescentric gouges. The composition and texture of glacial tills in the region are variable and reflect local source terranes (Franzi et al., 2007). Till in upland valleys and the Champlain Lowland is commonly buried beneath a variable thickness of younger glacial, glacial foreland (i.e. those deposits associated with ice-marginal environments), and nonglacial deposits.

The oldest glacial deposits in Essex County were first described by Muller (1965a, 1965b, 1969) and Craft (1969) from an exposure of multiple tills interbedded with lacustrine sediment at the open-pit mine at Tahawus. Wood fragments from lake mud between two tills yielded uncorrected 14C ages of > 41,000 years BP and > 55,000 years BP (W-1451 and Y-1715, respectively). Note that all subsequent radiocarbon ages presented in this discussion are calibrated or “calendar” ages unless specifically identified as uncorrected 14C ages. The presence of pollen from hardwood species that are no longer found in the region in a pollen profile between the lowermost tills led Muller et al. (1993) to conclude that the mud was deposited during a nonglacial interval that was warmer or longer than the present. Muller et al. (1993) suggested that the warm interval represented by the pollen data best correlate with isotope stage 5e, which roughly coincides with the Pre-Wisconsinan Sangamon Interglacial. They further suggested that the lack of cold-climate pollen at the top of the pollen profile was due to erosion by subsequent ice advances.

Most glacial deposits in the region are associated with the retreat of the Hudson-Champlain lobe during the waning of stages of the Late Wisconsinan glaciation. Deglacial drawdown of ice in Adirondack valleys and the Champlain Lowland hastened thinning of ice in upland regions and caused lobation of the ice margin. Deglaciation of the east-central Adirondack Upland and west-central Champlain Lowland region probably began after 14,000 years BP (Muller and Calkin 1993; Ridge 2003; Franzi et al., 2007). The regional and stratigraphic distribution of these deposits generally conforms to a model of systematic northward recession of active continental ice lobes in Adirondack valleys and the Champlain Lowland (e.g. Diemer and Franzi, 1988; Franzi, 1992; Rayburn et al. 2005, 2007; Franzi et al., 2007).

Craft (1976) described the relationship between the Blue Ridge Moraine and glacial Lake Warrensburg (Miller, 1925) in the upper Schroon River Valley. The moraine was build by ice that originated in the upper Hudson River drainage basin and flowed eastward through The Branch Valley to a position near Blue Ridge (Craft, 1976). Meltwater outflow from the ice margin deposited an outwash valley train that was

graded to a delta built into glacial Lake Warrensburg in the upper Schroon Valley. A minimum age of about 13.1 thousand years BP (uncorrected 14C) for glacial Lake Warrensburg, and by association the Blue Ridge Moraine, is provided by a bog-bottom date from outwash associated with the Luzerne Readvance (Connally and Sirkin, 1971). Younger outwash filled The Branch Valley behind the moraine following drainage of Lake Warrensburg and further up-valley retreat of the ice margin (Craft, 1976).

North of the Hudson River–Lake Champlain drainage divide, the receding ice margin commonly blocked local north- or east-draining valleys and created proglacial lakes that expanded with ice-margin recession. The general chronology of late glacial events in the region is best understood from the analysis of glacial foreland deposits and landforms and their relationships to proglacial lakes. Northward expansion of proglacial lakes in the Ausable and Boquet valleys was punctuated by sudden lake-draining breakouts as lower outlets were uncovered as the ice margin receded (Diemer and Franzi, 1988; Franzi, 1992). Figure 5 provides an example of the drainage and lake-level changes that occurred in the Ausable and Boquet valleys near Elizabethtown about 13.2 thousand years BP (Franzi, 1992; Rayburn et al., 2007). Examples of outflow channels and channel systems that are associated with breakout floods and sustained proglacial lake outflow in Essex County include the Channel Belt between Lewis and Ausable Forks (Kemp and Alling, 1925), the channel system at Wilmington Notch, and the Black Brook channel (Diemer and Franzi, 1988). Regional correlations of upland proglacial lake sequences (Diemer and Franzi, 1988; Franzi, 1992) are consistent with generally synchronous ice recession in adjacent valleys. Local upland proglacial lakes in the Lake Champlain drainage basin were succeeded by Lake Vermont and later by the Champlain Sea as ice receded northward in the Champlain Valley.

Glacial Lake Vermont in the Champlain Lowland was the largest proglacial lake in the region. Chapman (1937) recognized two stages of Lake Vermont, which he named the Coveville (upper) and Fort Ann (lower) (fig. 6). Lake Coveville was probably confluent with coeval proglacial lakes in the Hudson Lowland but their relationship remains elusive. The outlet for the Fort Ann Stage was located on the Champlain-Hudson drainage divide near Battle Hill north of Fort Ann in Warren County and

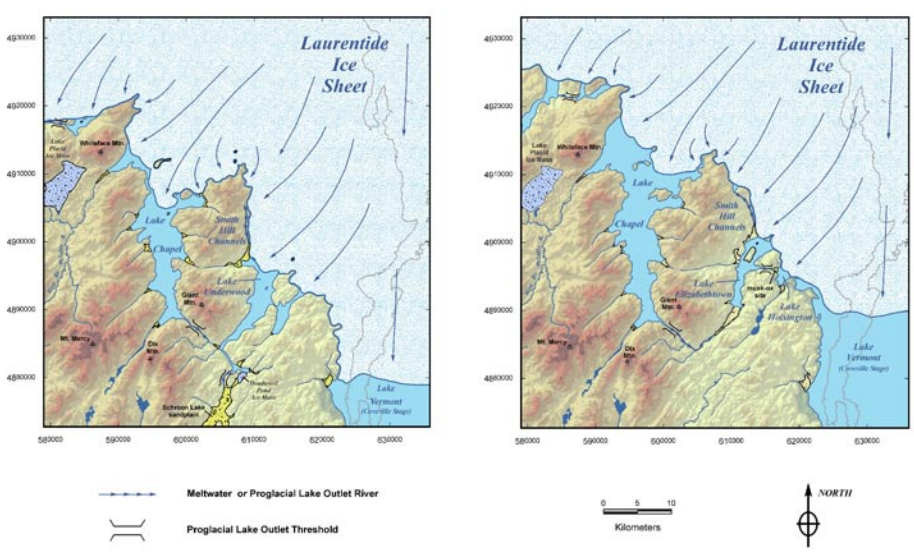


Figure 5.—The shaded relief Digital Elevation Model (DEM) maps of the Ausable and Boquet valleys near Elizabethtown show the paleogeography and ice margin immediately prior to and after deposition of the musk-ox bone (from Rayburn et al., 2007).

outflow was directed southward into the Hudson drainage basin. Franzi et al. (2002; 2007) and Rayburn et al. (2005) traced Coveville shoreline features northward to Cobblestone Hill and Altona Flat Rock (Clinton County) and suggested that the breakout of proglacial Lake Iroquois in the Ontario and St. Lawrence lowlands simultaneously scoured the Flat Rocks in Clinton County, deposited the Cobblestone Hill moraine and caused the level of Lake Vermont to drop from the Coveville to Fort Ann level. Rayburn et al. (2007) reported two radiocarbon dates from organic materials in lacustrine deposits from Essex County that bracket these events. A portion of musk-ox vertebra found in prodeltaic rhythmites in a gravel pit near Elizabethtown yielded calibrated dates in the range of 13.4 to 13.0 thousand years BP. The bone date corresponds to an ice marginal position near Elizabethtown and the Coveville Stage of

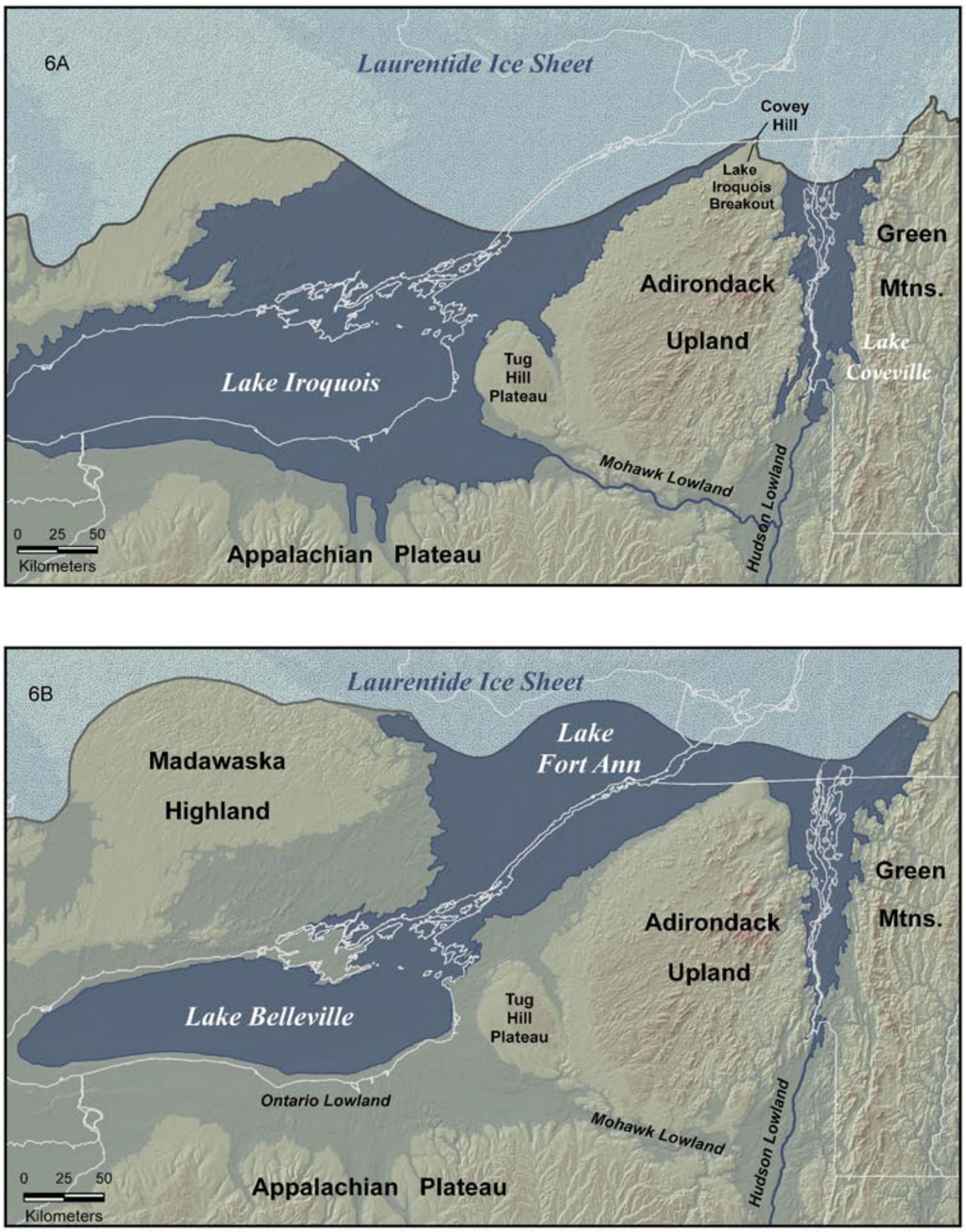


Figure 6.—Successive stages of Glacial Lake Vermont (6A and 6B) with respect to the receding Laurentide Ice Sheet.

Lake Vermont. A second date of 13.0 to 12.7 thousand years BP from Long Pond near Willsboro dates the drop from the Coveville level to the present level of Long Pond, and thus dates the ice margin at Cobblestone Hill in Clinton County (Rayburn et al., 2007). Late Wisconsin ice-retreat rates estimated from these dates and other geochronologic evidence from the Champlain Lowland generally fall in the range of 0.2 to 0.5 km/yr (Franzi et al., 2007).

Ice recession from the north flank of Covey Hill in southwestern Quebec caused proglacial lakes in the St. Lawrence Lowland to drain to the Fort Ann level. The merged proglacial water bodies are known by different names in the St. Lawrence Lowland (see discussions in Pair and Rodrigues, 1993 and Franzi et al., 2007), however, the Fort Ann outlet continued to control water level and direct outflow southward through the Champlain and Hudson Lowlands during this time.

Ice margin recession from the Appalachian piedmont in southern Quebec, drained proglacial Lake Vermont (Fort Ann Phase), opened connection to the western Goldthwait Sea in the Gulf of St. Lawrence, and allowed marine water to inundate the isostatically depressed St. Lawrence and Champlain Lowlands. The marine incursion, known as the Champlain Sea, persisted until isostatic uplift isolated the Champlain Lowland from the St. Lawrence estuary and established early Lake Champlain. Preliminary analyses of microfauna extracted from radiocarbon-dated sediment cores from Bulwagga Bay suggest that saline or brackish water conditions may have lingered in this portion of the Champlain Basin until approximately 8.9 thousand years BP (J. Rayburn and T. Cronin, personal communication, 2009).

Lacustrine and marine deposits associated with proglacial Lake Vermont and the Champlain Sea were deposited in off-lapping sequences as water levels in the Champlain Lowland fell during deglaciation. Deltaic sandplains mark the locations where the rivers entered the regional water bodies in the lowland. Large Coveville Stage deltas occur at Elizabethtown (Boquet River), The Plains (North Branch Boquet River) and Clintonville (Ausable River). Fort Ann Stage deltas for these same rivers are found down-valley at I-87 between Elizabethtown and Wadhams, east of Reber and north of Keeseville (Clinton County), respectively. A large marine delta deposit occurs in the lower Boquet River at Willsboro. Thick deposits of glacial lacustrine and glacial marine sand and mud occur in a narrow band parallel to the Lake Champlain shoreline. These deposits are prone to small slumps (generally < 1 hectare) (Newland, 1938; Buddington and Whitcomb, 1941; Franzi et al., 2007).

Several published accounts document evidence for local alpine glaciation in the High Peaks following recession Late Wisconsinan continental glaciers (e.g. Johnson, 1917; Alling, 1918, 1920; Kemp and Alling, 1925; Craft, 1976). More recently, Waitt and Davis (1988), Ackerly (1989) and Davis (1999) reviewed published evidence for local glaciation in the northeastern United States and concluded that many deposits and landforms ascribed to Late Wisconsinan alpine glaciation may be relict features or can be attributed to wasting continental ice lobes and post-glacial processes. No evidence has yet been found for the possible perturbation of the proglacial lake successions in the Ausable and Boquet basins due to the expansion of Late Wisconsinan alpine glaciers. Furthermore, the occurrence of high-elevation lacustrine deposits (> 700 meters above sea level), dammed by continental ice lobes in the upper Spruce Mill Creek and Roaring Brook (Barclay, 1993) watersheds, indicate that Late Wisconsinan alpine glaciation was probably less extensive than proposed by Craft (1976). Radial outflow associated with an Adirondack ice dome at the margin of the Laurentide Ice Sheet (Hughes and others, 1985) may explain some of the local flow patterns described by Craft (1976) but the inferred dome must predate the deglaciation of the Ausable and Boquet valleys.

Drainage

The drainage system of Essex County is separated into two major systems: The Lake Champlain-St. Lawrence River system and the Hudson River system (fig. 7). The drainage from the northern half and southeastern edge of the county flows northward and eastward into the Lake Champlain-St. Lawrence River system, and the drainage from most of the southern half of the county flows southward into the Hudson River system.

About 55 percent of the county lies within the west-central and southwest Lake Champlain watershed, which drains northward via the Richelieu River to the St. Lawrence River. The principal drainage basins in this part of the county are the Ausable, Boquet, and Upper Saranac. Minor sub-basins that drain directly into central and south Lake Champlain are Willsboro Bay-Lake Champlain, Westport-Lake Champlain, Witherbee, McKenzie Brook, Bullwagga Bay-Lake Champlain, Putnam Creek, Fivemile Creek-Lake Champlain, and Trout Brook. A very small portion of the county lies in the Lake George basin. The Saranac River, which originates in the central Adirondack Upland near Saranac Lake, drains a small area (about 5 percent) of the county in the very northwest corner. The Ausable and Boquet Rivers originate in the Adirondack High Peaks Region, flow northeast toward Lake Champlain, and drain most of the northern half of the county. The Ausable River enters the lake just north of Keesville and the Boquet River enters the lake at Willsboro. The various minor sub-basins mentioned above originate in the eastern foothills of the county which lie between the High Peaks and the Champlain Valley, flow generally eastward toward Lake Champlain, and drain most of the eastern foothills and most of the area of the Champlain Valley that lies within the county.

The Upper Hudson watershed drains about 42 percent of the county south into the main Hudson River. The principal sub-basins of the Upper Hudson within the county are the Hudson, Boreas, Schroon, and Cedar Rivers, and Trout Brook (not the same Trout Brook mentioned above). They originate in the southern High Peaks Region and in the low mountains south of the High Peaks Region, flow generally southward, and drain most of the southern half of the county.

Figure 7.—The primary drainage systems of Essex County, New York: The Lake Champlain—St. Lawrence River system drains north and the Hudson River drains south.

A very small portion of the county (about 3 percent) lies within the Raquette River watershed which drains northwest into the St. Lawrence River. The principal sub-basin of the Raquette watershed that lies in Essex County is the Cold River basin. The Cold River originates in the southern High Peaks Region and flows generally westward into the Raquette River north of Long Lake.

Water Supply

Victor Putman, Director of the Essex County Department of Community Development and Planning, prepared this section.

Essex County contains 147 NYS Health Department regulated water supplies. There are 36 community (municipal) water supplies, and 111 non-community water supplies (group camps, restaurants, campgrounds, etc.). The majority of water systems (132) utilize groundwater where the remainder (15) utilizes surface water resources. The majority of groundwater supplies are of excellent quality and yield, although several communities are considered to have groundwater under the direct influence of surface water including Port Kent WD #1 and Westport Water Districts. The Westport water system recently installed major improvements as well as filtration facilities; whereas, the Port Kent Water System is currently exploring the potential for a groundwater supply. There are three known large groundwater aquifers within the county including those in the towns of Lewis, Schroon/North Hudson, and the Saranac Lake region. The municipal water supplier in Schroon and Lewis are currently utilizing these aquifers as integral components to their respective community water systems. While the Village of Saranac Lake currently utilizes the surface water resources of McKenzie Pond, the community lost its filtration avoidance and will be seeking a potential groundwater supply source. Of the total county residents in the 2000 census, 38,851 people, approximately 24,000 are served by municipal water supplies, while the remainder uses private drilled wells or springs. The quality of groundwater within most areas of the county is excellent except for isolated bedrock wells paralleling Lake Champlain where natural sulfur deposits have adversely affected water quality. Essex County also has one of the few filtration wavered community water supplies in New York State, namely the Village of Ticonderoga system which uses Gooseneck Pond as its source. This surface water impoundment is located on NYS Forest Preserve Lands and lacks any shoreline development contributing to its excellent water quality. Other regional public surface water supplies including Lake George, Lake Champlain, and Lake Placid have maintained excellent water quality, however emerging manmade contaminants may require more expensive treatment in the future or may require conversion to groundwater supplies as development and wastewater treatment discharges compromise surface water quality.

Soil Temperature Regimes

Temperature data from well water, air, and soil indicate three soil temperature zones within Essex County. The distribution of mesic, frigid, and cryic soil types is shown in figure 8.

Mesic soils are generally mapped from 95 feet in elevation (mean Lake Champlain lake level) to 500 feet above sea level. Frigid soils are mapped from 500 to 3,000 feet in elevation, and cryic soils are mapped above 3,000 feet.

A soil with a frigid temperature regime is warmer in summer than a soil with a cryic regime, but its mean annual temperature is lower than 8 degrees C (47 degrees F), and the difference between mean summer (June, July, and August) and mean winter (December, January, and February) soil temperatures is more than 6 degrees C (43 degrees F) either at a depth of 50 cm (20 inches) from the soil surface, or at bedrock or a dense-layer contact, whichever is shallower. A soil with a mesic temperature regime has a mean annual soil temperature 8 degrees C or higher, but lower than 15

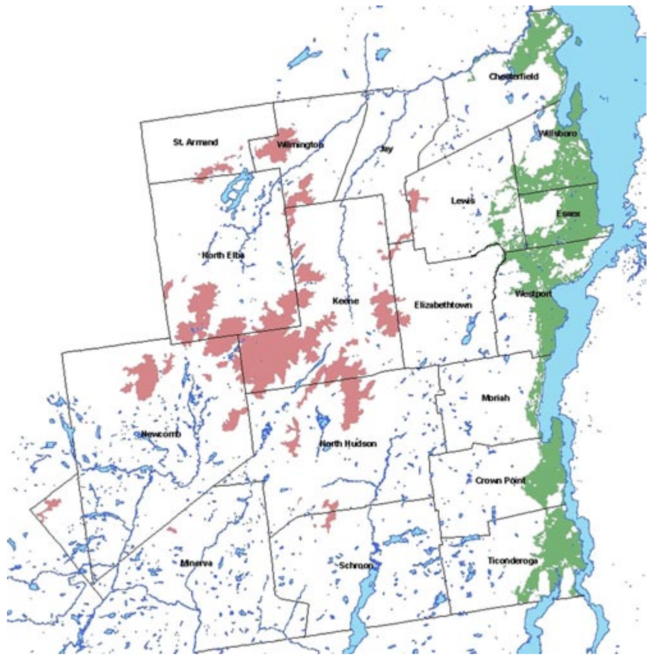


Figure 8.—Temperature data from well water, air, and soil indicate three soil temperature zones in Essex County. The distribution of mesic, frigid, and cryic soils is illustrated above. Areas in green are mesic, areas in coral are cryic, and the remainder and bulk of the county is frigid.

degrees C (59 degrees F), and the difference between mean summer and mean winter soil temperatures is more than 6 degrees C at a depth of 50 cm from the soil surface.

The estimated break between mesic, frigid, and cryic soil temperature regimes in Essex County was based on three sources of data:

1. Soil temperature estimates from 9 well water temperature measurements (dug and drilled wells) during 1985 to help establish the mesic/frigid division.
2. Soil temperature estimates based on average air temperature measurements plus 2 degrees F from 1971 through 2000: Peru, NY 45.1 degrees F; Elizabethtown 43.6; Lake Placid 40.9; Newcomb 40.7 degrees F, and Mount Mansfield, VT 34.4 degrees F.
3. Soil temperature measurements using resistance readings of thermocouples that were installed at 20 inches below the surface. Monthly readings during the growing season were collected during 1991 through 1993 at 9 sites on Whiteface Mountain, representing elevations from 2,200 to 4,400 feet above sea level to help establish the frigid/cryic division.

Climate

This section was prepared by the Natural Resources Conservation Service National Water and Climate Center, Portland, Oregon.

Climate Tables are created from climate stations Peru (Clinton County), Elizabethtown, Lake Placid 2 S, Newcomb 3 E, New York (all in Essex County), as well as from nearby Mt. Mansfield, Vermont. In addition, new mean annual precipitation and temperature maps from official USDA-NRCS climate maps of New York, developed using Oregon State University's PRISM system, were used in this analysis.

Thunderstorm days, relative humidity, percent sunshine, and wind information are estimated from First Order station Burlington, Vermont.

Table 1 gives data on temperature and precipitation for the survey area as recorded at these climate stations in the period 1971 to 2000. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on the length of the growing season.

In winter, average temperatures at Peru 2 WSW, Elizabethtown, Lake Placid, Newcomb, and Mt. Mansfield are 21.2, 19.2, 18.1, 17.4 and 11.8 degrees F, respectively. Average daily minimum temperatures in winter are 11.6, 7.9, 7.3, 6.7 and 4.0 degrees, respectively. The lowest temperatures on record are -34 at Peru 2 WSW on January 27, 1994; -35 degrees at Elizabethtown on January 15, 1957; -37 degrees at Lake Placid on February 11, 1979; -34 degrees at Newcomb on January 19, 1997; and -40 at Mt. Mansfield on December 31, 1962.

In summer, average temperatures are 67.6, 66.3, 62.2, 62.5 and 56.3 degrees, respectively, at Peru 2 WSW, Elizabethtown, Lake Placid, Newcomb, and Mt. Mansfield. Average daily maximum temperatures in summer are 79.1, 79.1, 74.4, 74.5 and 63.4 degrees, respectively. The highest temperatures ever recorded were 100 degrees at Peru 2 WSW on July 20, 1977; 102 degrees at Elizabethtown on July 18, 1953; 97 degrees at Lake Placid on July 19, 1953; 94 at Newcomb on August 3, 1988; and 84 at Mt. Mansfield on June 7, 1999.

Growing degree days are shown in table 1. They are equivalent to “heat units”. During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

Average annual precipitation over Essex County ranges from 34 to 40 inches over eastern sections to between 40 and 48 inches over higher terrain in the west, including around 70 inches on Mt. Marcy at 5,344 feet based on PRISM spatial climate estimates (fig. 9). Mean annual precipitation at the four climate stations is 30.99 inches at Peru 2 WSW, 36.89 inches at Elizabethtown, 39.65 inches at Lake Placid, 42.40 inches at Newcomb, and 78.78 inches at Mt. Mansfield. Of this, about 45 to 51 percent usually falls in May through September growing season (at lower elevations). The heaviest 1-day precipitation amounts during the periods of record were: 5.70 inches at Peru 2WSW on June 16, 1987; 3.80 inches at Elizabethtown on September 17, 1999; 4.27 inches at Lake Placid on this same date; 3.96 inches at Newcomb on September 6, 1985; and 9.92 inches at Mt. Mansfield, also on September 17, 1999. Thunderstorms occur on about 23 days each year, and most occur in July.

Average seasonal snowfall is also highly dependent on elevation, with about 60 inches falling annually along Lake Champlain, and as much as 150 inches or more over the highest terrain, including near Mt. Marcy. At the climate stations used here the annual averages are 58.1, 65.0, 115.2, 112.0 and 217.4 inches, respectively, at Peru 2 WSW, Elizabethtown, Lake Placid, Newcomb and Mt. Mansfield. The greatest snow depths at any one time during the periods of record were: 44 inches at Peru 2 WSW on February 17, 1954; 47 inches at Elizabethtown, recorded on January 22, 1978; 47 inches at Lake Placid, recorded on March 8, 1971; 53 inches at Newcomb, recorded on March 8, 1971; and 149 inches at Mt. Mansfield, recorded on April 2, 1969. On average, about 75 days per year have at least 1 inch of snow on the ground near Lake Champlain, but western parts of the county average around 140 days, and the highest mountains see snow on the ground about 180 to 200 days per year, on average. The heaviest 1-day snowfalls on record were: 28.0 inches at Peru 2 WSW on March 6, 2001, 27.0 inches at Elizabethtown on March 7, 2001; 18.0 inches at Lake Placid on December 12, 1952 (the snow record only extends through 1986 at Lake Placid); 20.0 inches at Newcomb on March 14, 1993; and 24.0 inches at Mt. Mansfield on November 18, 1965.

The average relative humidity in mid-afternoon is about 70 percent in winter and about 55 percent in summer. Humidity is higher at night, and the average at dawn is about 75 percent in winter and spring, and about 85 percent in late summer and early

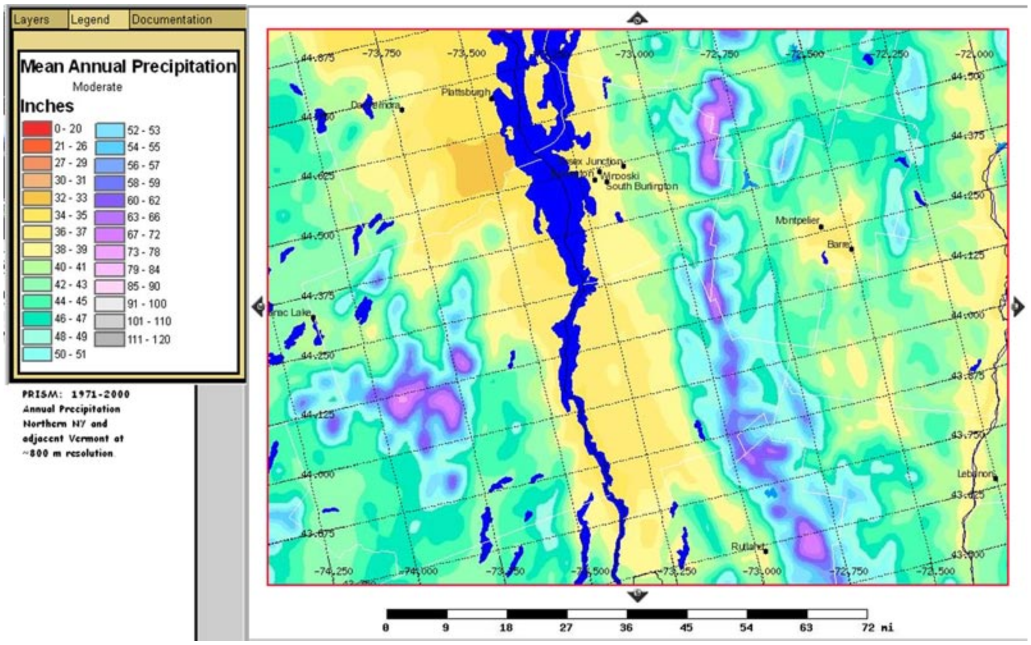


Figure 9.—PRISM: 1971 – 2000 Annual Precipitation Northern NY and adjacent Vermont.

fall. The sun shines about 62 percent of the time in summer and about 40 percent in winter. The prevailing wind is from the south at lower elevations, especially near Lake Champlain, but is from the west at higher elevations. Average wind speed is highest in the winter and spring, when it is about 10 miles per hour in the valleys, but averages about 30 mph on the higher ridges near Mt. Marcy.

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept or model of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify

predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

This survey area was mapped at two levels of detail (fig. 10). At the more detailed level, map units are narrowly defined. Map unit boundaries were plotted and verified at closely spaced intervals. Maps were made at a scale of 1:24,000 or 2,000 feet to the inch, and the allowable minimum size of a soil delineation is 5 to 7 acres (Order 2 soil survey). With the detailed level of mapping, intensive land use planning and management can be achieved such as farmland conservation and residential subdivision planning. At the less detailed level, map units are broadly defined. Boundaries were plotted and verified at wider intervals. Maps were made at a scale of 1:62.500 or 5,208 feet to the inch, and the allowable minimum size of a soil delineation is 40 acres (Order 3 soil survey). With the less detailed level of mapping, extensive land use planning and management is possible such as forest management and watershed planning. In the legend for the detailed soil maps, narrowly defined units are indicated by symbols in which all the characters are alphabetical. For broadly defined units, the first two or three characters are numeric and the last character is alphabetical.

Survey Procedures

The general procedures followed in making this soil survey are described in the National Soil Survey Handbook (USDA-Natural Resources Conservation Service) of

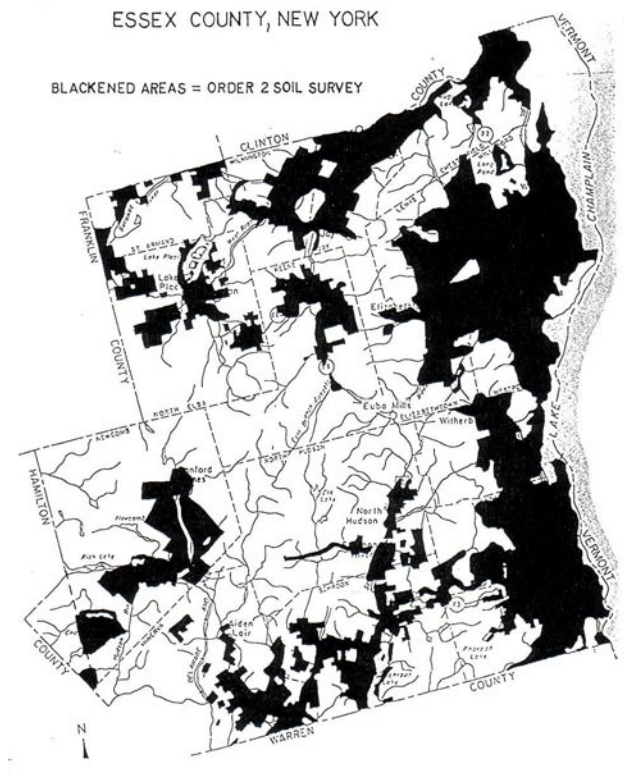


Figure 10.—Areas of the county mapped at the more detailed level (Order 2 – blackened areas), and less detailed level (Order 3), are illustrated above. Order 2 mapping corresponds to New York State Adirondack Park Agency zoning designations of Hamlet, moderate intensity use, low intensity use, rural use, industrial use, and intensive use state land.

the Natural Resources Conservation Service and the Soil Survey Manual (Soil Survey Division Staff, 1993). Soil scientists utilized existing soil information for conservation planning on individual farms prior to the start of the project, as well as soils information collected during special prior mapping projects such as the Soil Survey of the Lake Placid Area, New York (USDA Soil Conservation Service, 1978). Geologic references were also used including “Pleistocene Geology of the Northeast Adirondack Region, New York” (Denny, 1974).

Before field work began, preliminary boundaries of slopes and landforms were plotted stereoscopically on aerial photographs taken in 1968 and 1974. Two map scales were used for the survey. All New York State owned land (except state land zoned “intensive use”) and privately owned land zoned “Resource Management” by the New York State Adirondack Park Agency, was mapped on aerial photos at a scale of 1:62,500. All other areas of the county were mapped on aerial photos with a scale of 1:24,000. Color infrared aerial photographs were employed about 1989 by soil scientists taken from flights in 1985 and 1986. Soil scientists also studied U.S. Geological Survey topographic maps, at a scale of 1:24,000, to relate landform, slope, and image features to the area of survey. Commonly, a reconnaissance was made by vehicle to examine road cuts and surface features before the landscape was traversed on foot.

Sample areas were selected to represent the major landscapes in the county. These areas were investigated to determine soil-landform relationships, diversity of soil types

within landforms, and other data related to land use interpretations. Field notes and profile descriptions were taken to document soil series and map units. As mapping progressed, these preliminary notes were used to define map unit composition. In areas where phases of Vergennes, Amenia, Windsor, and Occum soils are mapped near Lake Champlain, and in other areas of complex soil patterns, traverses were about 100 yards apart. In areas where phases of Becket, Tunbridge, and Monadnock soils are mapped in the Adirondack Upland, where soil patterns are more predictable or relatively simple, traverses were about one quarter mile apart.

As the traverses were made, soil scientists divided the landscape into landforms or landform segments based on use and management of the soils. For example, a hill would be separated from a depression, and a gently sloping summit from a very steep back slope of a ridge. In most areas, soil examinations along the traverses were made 100 to 500 yards apart, depending on the landscape and soil pattern.

Observations of such items as landform, blown-down trees, vegetation, road cuts, animal burrows, stoniness, and bedrock outcrops were made without regard to spacing. Soil boundaries were determined on the basis of soil examinations, observations, and photo interpretation. Soil material was examined with the aid of a hand auger and a spade to a depth of 4 to 6 feet, or to bedrock within a depth of 6 feet. The pedons described as typical were observed and studied in pits that were dug with shovels or backhoes.

Samples for chemical and physical analyses and for analyses of engineering properties were taken from representative sites of several of the soils in the survey area. Most of this sampling occurred between 1984 and 1994. The chemical and physical analyses were made by the Soil Characterization Laboratory, Department of Soil, Crop, and Atmospheric Sciences at Cornell University, Ithaca, New York and by the National Soil Survey Laboratory, Natural Resources Conservation Service, at Lincoln, Nebraska. The results of the analyses are stored in computerized data files at the respective laboratories. The analyses for engineering properties were made by the New York State Department of Transportation, Soil Mechanics Bureau. A description of the laboratory procedures can be obtained on request from the respective laboratories. The results of the studies can be obtained from Cornell University, the New York State Department of Transportation, and the state office of the Natural Resources Conservation Service, Syracuse, New York.

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly

indicates a feature that affects use or management. For example, Vergennes silty clay loam, 3 to 8 percent slopes is a phase of the Vergennes series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. CoB-Chatfield-Hollis complex, 3 to 8 percent slopes, very rocky, very stony is an example.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock Outcrop is an example.

The detailed soil map units are designated by one of two formats within the legend:

Broadly Defined Legend—Map symbols consist of numbers followed by a letter (e.g., 375A, 721C). The numbers in the symbol represent the soil. The letter, always a capital, indicates the slope: A, B, C, D, and F. This part of the legend is in numerical order.

Narrowly Defined Legend—Map symbols consist of letters (e.g., AmB, MmF, WoA). The first letter, always a capital, is the initial letter of the soil name. The second letter is lower case and separates map units except for slope phases. The third letter, always a capital, indicates the slope: A, B, C, D, E, and F. This part of the legend is in alphabetical order.

Table 4 gives the acreage and proportionate extent of each map unit. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils or miscellaneous areas.

The reaction for organic horizons in the following map unit descriptions is given as a CaCl2 based pH and the reaction for mineral soil horizons is given as H2O based pH.

10A—Pleasant Lake-Burnt Vly complex, 0 to 2 percent slopes

Setting

This broadly defined map unit consists of soils that are mucky, very deep, nearly level, and very poorly drained. They are on bogs and swamps in the Adirondack Upland. Areas range from 10 to 230 acres in size.

Map Unit Composition

Major Components
Pleasant Lake: 45 percent
Burnt Vly: 30 percent

Inclusions
Rumney: 5 percent
Searsport: 5 percent
Tahawus: 5 percent
Bucksport: 4 percent
Unnamed: 3 percent
Wonsqueak: 3 percent

The poorly drained Rumney, Tahawus, Searsport, Bucksport, and Wonsqueak soils may be included in areas of this map unit. Also included are organic soils with higher woody fragment content. Rumney soils are on small flood plain areas near streams, and are loamy. Tahawus soils are on small areas underlain by sandy till. Searsport soils are on small areas underlain by sandy outwash. Bucksport and

Wonsqueak soils occupy similar positions, but have a higher pH. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Pleasant Lake: yes
  Burnt Vly: yes
Hydrologic group:
  Pleasant Lake: B/D
  Burnt Vly: B/D

Soil Properties and Qualities

Pleasant Lake
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: not rated
Surface runoff potential: negligible
Landform: bogs, swamps
Parent material: organic material
Reaction (pH):
  0 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 5 inches: ultra acid or extremely acid (1.8 to 4.4)
  5 to 9 inches: ultra acid or extremely acid (1.8 to 4.4)
  9 to 31 inches: ultra acid or extremely acid (1.8 to 4.4)
  31 to 44 inches: ultra acid or extremely acid (1.8 to 4.4)
  44 to 53 inches: ultra acid or extremely acid (1.8 to 4.4)
  53 to 66 inches: ultra acid or extremely acid (1.8 to 4.4)
Permeability:
  0 to 4 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  4 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  5 to 9 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  9 to 31 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  31 to 44 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  44 to 53 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  53 to 66 inches: moderately slow to rapid (0.2 to 20 inches/hour)

Burnt Vly
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high

Shrink-swell potential: low
Surface runoff potential: negligible
Landform: bogs, swamps
Parent material: organic material over sandy glaciofluvial deposits
Reaction (pH):
0 to 10 inches: ultra acid to very strongly acid (1.8 to 4.5)
10 to 15 inches: ultra acid to very strongly acid (1.8 to 4.5)
15 to 24 inches: ultra acid to very strongly acid (1.8 to 4.5)
24 to 34 inches: ultra acid to very strongly acid (1.8 to 4.5)
34 to 56 inches: extremely acid to slightly acid (3.5 to 6.5)
56 to 72 inches: extremely acid to slightly acid (3.5 to 6.5)
Permeability:
0 to 10 inches: moderately slow to rapid (0.2 to 20 inches/hour)
10 to 15 inches: moderately slow to rapid (0.2 to 20 inches/hour)
15 to 24 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
24 to 34 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
34 to 56 inches: moderate to very rapid (0.6 to 100 inches/hour)
56 to 72 inches: moderate to very rapid (0.6 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland

- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Areas of soils with thick organic surfaces should be avoided when locating haul roads.
- Areas of poorly drained or very poorly drained soils should be avoided when locating log landings.
- Areas of soils with thick organic surfaces should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome the windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The organic matter content limits soil strength and severely affects the capacity of these soils to bear a load without movement.

- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets

- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Subsidence of the organic material reduces the load-bearing capacity of these soils.

13A—Burnt Vly-Rumney-Pleasant Lake complex, 0 to 2 percent slopes

Setting

This broadly defined map unit consists of soils that are mucky and loamy, very deep, nearly level, and very poorly drained to poorly drained (fig. 11). They are on bogs in the Adirondack Upland. Areas range from 5 to 830 acres in size.

Map Unit Composition

Major Components
Burnt Vly: 40 percent
Rumney: 30 percent
Pleasant Lake: 20 percent

Inclusions
Searsport: 3 percent
Tahawus: 3 percent
Fluvaquents-Udifluvents: 1 percent
Podunk: 1 percent
Unnamed: 1 percent
Wonsqueak: 1 percent

The Searsport, Tahawus, somewhat poorly drained and well drained Fluvaquents-Udifluvents, moderately well drained Podunk and Wonsqueak soils may be included in areas of this map unit. Also included are organic soils with higher woody fragment content. Searsport soils are on small areas underlain by sandy outwash. Tahawus soils are on small areas underlain by sandy till. Fluvaquents-Udifluvents soils occupy positions directly adjacent to stream channels. Podunk soils occupy higher flood plain positions than Rumney soils. Wonsqueak soils occupy similar positions as Burnt Vly soils, but have a higher pH. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w

Figure 11.—Oblique aerial view of an area of Burnt Vly-Rumney-Pleasant Lake complex north of Boreas Ponds in the town of North Hudson. Adjacent to the open water in several places, mucky soils underlie areas of brownish-looking emergent wetland plants and lighter green areas of Black Spruce–Tamarack bog. Poorly drained loamy alluvial soils lie along the edges of the streams entering the wetland and form small levees.

Hydric soil rating:
- Burnt Vly: yes
- Rumney: yes
- Pleasant Lake: yes

Hydrologic group:
- Burnt Vly: B/D
- Rumney: B/D
- Pleasant Lake: B/D

Soil Properties and Qualities

Burnt Vly

Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
- Water table kind: apparent

Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: bogs
Parent material: organic material over sandy glaciofluvial deposits
Reaction (pH):
- 0 to 10 inches: ultra acid to very strongly acid (1.8 to 4.5)
- 10 to 15 inches: ultra acid to very strongly acid (1.8 to 4.5)
- 15 to 24 inches: ultra acid to very strongly acid (1.8 to 4.5)
- 24 to 34 inches: ultra acid to very strongly acid (1.8 to 4.5)
- 34 to 56 inches: extremely acid to slightly acid (3.5 to 6.5)
- 56 to 72 inches: extremely acid to slightly acid (3.5 to 6.5)

Permeability:
- 0 to 10 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 10 to 15 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 15 to 24 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 24 to 34 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 34 to 56 inches: moderate to very rapid (0.6 to 100 inches/hour)
- 56 to 72 inches: moderate to very rapid (0.6 to 100 inches/hour)

Rumney
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
- Water table kind: apparent

Flooding: frequent
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: loamy alluvium derived from gneiss
Reaction (pH):
- 0 to 7 inches: very strongly acid to neutral (4.5 to 7.3)
- 7 to 12 inches: very strongly acid to neutral (4.5 to 7.3)
- 12 to 19 inches: very strongly acid to neutral (4.5 to 7.3)
- 19 to 30 inches: very strongly acid to neutral (4.5 to 7.3)
- 30 to 33 inches: very strongly acid to neutral (4.5 to 7.3)
- 33 to 48 inches: very strongly acid to neutral (4.5 to 7.3)
- 48 to 54 inches: very strongly acid to neutral (4.5 to 7.3)
- 54 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
- 0 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 30 to 33 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 33 to 48 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 48 to 54 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 54 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Pleasant Lake
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
- Water table kind: apparent

Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: not rated
Surface runoff potential: negligible
Landform: bogs
Parent material: organic material

Reaction (pH):
- 0 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
- 4 to 5 inches: ultra acid or extremely acid (1.8 to 4.4)
- 5 to 9 inches: ultra acid or extremely acid (1.8 to 4.4)
- 9 to 31 inches: ultra acid or extremely acid (1.8 to 4.4)
- 31 to 44 inches: ultra acid or extremely acid (1.8 to 4.4)
- 44 to 53 inches: ultra acid or extremely acid (1.8 to 4.4)
- 53 to 66 inches: ultra acid or extremely acid (1.8 to 4.4)

Permeability:
- 0 to 4 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 4 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 5 to 9 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 9 to 31 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 31 to 44 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 44 to 53 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 53 to 66 inches: moderately slow to rapid (0.2 to 20 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland
- Avoiding construction of haul roads in frequently flooded areas is recommended.
- Areas of soils with thick organic surfaces should be avoided when locating haul roads.
- Avoid constructing log landings on frequently flooded soils.
- Areas of soils with thick organic surfaces should be avoided when locating log landings.
- Avoid timber harvesting during months of seasonal saturation. Harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome the windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding, flooding, or seasonal high water tables. Consult the Forestland Productivity table “Trees to Manage” section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The organic matter content limits soil strength and severely affects the capacity of these soils to bear a load without movement.

- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.
- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.
- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Subsidence of the organic material reduces the load-bearing capacity of these soils.
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.

29C—Burnt Vly-Colton-Rumney complex, 0 to 15 percent slopes

Setting

This broadly defined map unit consists of soils that are mucky, sandy and gravelly, and loamy, very deep, nearly level to strongly sloping, and very poorly drained, excessively drained, and poorly drained respectively. They are on flood plains and outwash plains in the Adirondack Upland. Areas range from 30 to 1,020 acres in size.

Map Unit Composition

Major Components
Burnt Vly: 40 percent

Colton: 30 percent
Rumney: 20 percent

Inclusions
Fluvaquents-Udifluvents: 3 percent
Adams: 2 percent
Pleasant Lake: 2 percent
Podunk: 2 percent
Unnamed: 1 percent

The somewhat poorly drained and well drained Fluvaquents-Udifluvents, somewhat excessively drained Adams, Pleasant Lake, and moderately well drained Podunk soils may be included in areas of this map unit. Also included are sandy and gravelly soils that are moderately well drained. Fluvaquents-Udifluvents soils occupy positions directly adjacent to stream channels. Podunk soils occupy higher flood plain positions than Rumney soils. Adams soils occupy similar positions as Colton soils, but have less gravel. Pleasant Lake soils occupy similar positions as Burnt Vly soils, but are greater than 51 inches to mineral soil material. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Burnt Vly: yes
  Colton: no
  Rumney: yes
Hydrologic group:
  Burnt Vly: B/D
  Colton: A
  Rumney: B/D

Soil Properties and Qualities

Burnt Vly
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: bogs, swamps
Parent material: organic material over sandy glaciofluvial deposits
Reaction (pH):
  0 to 10 inches: ultra acid to very strongly acid (1.8 to 4.5)
  10 to 15 inches: ultra acid to very strongly acid (1.8 to 4.5)
  15 to 24 inches: ultra acid to very strongly acid (1.8 to 4.5)
  24 to 34 inches: ultra acid to very strongly acid (1.8 to 4.5)
  34 to 56 inches: extremely acid to slightly acid (3.5 to 6.5)
  56 to 72 inches: extremely acid to slightly acid (3.5 to 6.5)

Permeability:
- 0 to 10 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 10 to 15 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 15 to 24 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 24 to 34 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 34 to 56 inches: moderate to very rapid (0.6 to 100 inches/hour)
- 56 to 72 inches: moderate to very rapid (0.6 to 100 inches/hour)

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
- 6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
- 21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
- 3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
- 6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
- 13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
- 21 to 72 inches: very rapid (20 to 100 inches/hour)

Rumney
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
- Water table kind: apparent

Flooding: frequent
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: loamy alluvium derived from gneiss
Reaction (pH):
- 0 to 7 inches: very strongly acid to neutral (4.5 to 7.3)
- 7 to 12 inches: very strongly acid to neutral (4.5 to 7.3)
- 12 to 19 inches: very strongly acid to neutral (4.5 to 7.3)
- 19 to 30 inches: very strongly acid to neutral (4.5 to 7.3)
- 30 to 33 inches: very strongly acid to neutral (4.5 to 7.3)

33 to 48 inches: very strongly acid to neutral (4.5 to 7.3)
48 to 54 inches: very strongly acid to neutral (4.5 to 7.3)
54 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
0 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 33 inches: moderately rapid to very rapid (2 to 100 inches/hour)
33 to 48 inches: moderately rapid to very rapid (2 to 100 inches/hour)
48 to 54 inches: moderately rapid to very rapid (2 to 100 inches/hour)
54 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness.
- Avoiding construction of haul roads in frequently flooded areas is recommended.
- Areas of poorly drained and very poorly drained soils should be avoided when locating log landings.
- Avoiding construction of log landings on frequently flooded soils is recommended.
- Limiting timber harvesting operations to winter months when the ground is frozen is recommended for soils with thick organic surfaces and low bearing strength.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness.
- Seeding cut and fill areas after grading and leveling and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability due to strongly sloping areas in areas of Colton soils.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in Colton soils. Consult the Forestland Productivity table “Trees to Manage” section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.
- The slope influences the use of machinery and the ease of excavation in Colton soils. Special building practices and designs may be required to ensure satisfactory performance.
- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- Because of ponding, some areas of these soils are very limited as a site for septic tank absorption fields.
- The excessive rate of fluid movement through some areas of these soils limits the proper treatment of effluent from septic systems. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Probable flooding in some areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- The seasonal high water table in some areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Some areas of these soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of some areas of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture in some areas of these soils. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Subsidence of the organic material reduces the load-bearing capacity of some areas of these soils.

- The slope of some areas of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.

113A—Ondawa-Rumney complex, 0 to 3 percent slopes

Setting

This broadly defined map unit consists of soils that are loamy, very deep, nearly level, and well and poorly drained respectively. They are on flood plains in the Adirondack Upland. Areas range from 10 to 420 acres in size.

Map Unit Composition

Major Components
Ondawa: 45 percent
Rumney: 30 percent

Inclusions
Burnt Vly: 5 percent
Lovewell: 5 percent
Podunk: 5 percent
Charles: 4 percent
Croghan: 3 percent
Fluvaquents-Udifluvents: 1 percent
Naumburg: 1 percent
Unnamed: 1 percent

The very poorly drained Burnt Vly, the moderately well drained Lovewell and Podunk, Charles, moderately well drained Croghan, somewhat poorly drained and well drained Fluvaquents-Udifluvents, and somewhat poorly drained Naumburg soils may be included in areas of this map unit. Also included are very poorly drained loamy flood plain soils. Burnt Vly soils are on small depressions and are mucky. Lovewell and Podunk soils occupy slightly lower positions on the flood plain than Ondawa soils, and Lovewell soils are silty. Charles soils occupy similar positions as Rumney soils but are silty. Croghan and Naumburg soils are on small areas underlain by sandy outwash. Fluvaquents-Udifluvents soils occupy positions directly adjacent to stream channels. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 1
Hydric soil rating:
  Ondawa: no
  Rumney: yes
Hydrologic group:
  Ondawa: A
  Rumney: B/D

Soil Properties and Qualities

Ondawa
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: greater than 60 inches
Flooding: occasional
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very low
Landform: flood plains
Parent material: loamy alluvium derived from gneiss
Reaction (pH):
- 0 to 9 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 9 to 21 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 21 to 34 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 34 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 21 to 34 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 34 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Rumney
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
- Water table kind: apparent

Flooding: frequent
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: loamy alluvium derived from gneiss
Reaction (pH):
- 0 to 7 inches: very strongly acid to neutral (4.5 to 7.3)
- 7 to 12 inches: very strongly acid to neutral (4.5 to 7.3)
- 12 to 19 inches: very strongly acid to neutral (4.5 to 7.3)
- 19 to 30 inches: very strongly acid to neutral (4.5 to 7.3)
- 30 to 33 inches: very strongly acid to neutral (4.5 to 7.3)
- 33 to 48 inches: very strongly acid to neutral (4.5 to 7.3)
- 48 to 54 inches: very strongly acid to neutral (4.5 to 7.3)
- 54 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
- 0 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 30 to 33 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 33 to 48 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 48 to 54 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 54 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland

- Conducting road construction and harvesting operations during months of low stream flow, and use of riparian buffers will help overcome construction limitations of haul roads caused by occasional flooding.
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness in some areas of these soils.
- Limiting construction of log landings on occasionally flooded soils, and conducting harvesting operations during months when flooding is least likely to occur will help overcome these limitations. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness in some areas of these soils.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard in some areas of these soils.
- Selective harvesting systems that minimize canopy openings and reduce root system damage, and maintenance of buffers around the upland edges may help overcome the windthrow hazard caused by wetness in some areas of these soils.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness in some areas of these soils. Consult the Forestland Productivity table “Trees to Manage” section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development

- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement in some areas of these soils. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in some areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.

- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of some areas of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

123A—Lovewell-Cornish complex, 0 to 2 percent slopes

Setting

This broadly defined map unit consists of soils that are silty, very deep, nearly level, and moderately well drained and somewhat poorly drained respectively. They are on flood plains in the Adirondack Upland. Areas range from 60 to 80 acres in size.

Map Unit Composition

Major Components
Lovewell: 45 percent
Cornish: 30 percent

Inclusions
Charles: 5 percent
Medomak: 5 percent
Podunk: 5 percent
Rumney: 4 percent
Hailesboro: 3 percent
Fluvaquents-Udifluvents: 2 percent
Unnamed: 1 percent

The poorly drained Charles, very poorly drained Medomak, Podunk, poorly drained Rumney, Hailesboro, and somewhat poorly drained and well drained Fluvaquents-Udifluvents soils may be included in areas of this map unit. Also included are well drained silty flood plain soils. Charles, Medomak, and Rumney soils occupy lower positions, and Rumney soils are loamy. Podunk soils occupy similar positions as Lovewell soils, but are loamy. Hailesboro soils occupy similar positions as Cornish soils, but are silty and clayey. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Lovewell: no
  Cornish: no
Hydrologic group:
  Lovewell: B/D
  Cornish: B/D

Soil Properties and Qualities

Lovewell

Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
    Water table kind: apparent
Flooding: occasional
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: low
Landform: flood plains
Parent material: silty alluvium derived from gneiss
Reaction (pH):
    0 to 11 inches: very strongly acid to slightly acid (4.5 to 6.5)
    11 to 20 inches: very strongly acid to slightly acid (4.5 to 6.5)
    20 to 30 inches: very strongly acid to slightly acid (4.5 to 6.5)
    30 to 50 inches: very strongly acid to slightly acid (4.5 to 6.5)
    50 to 56 inches: very strongly acid to slightly acid (4.5 to 6.5)
    56 to 75 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 11 inches: moderate (0.6 to 2 inches/hour)
    11 to 20 inches: moderate (0.6 to 2 inches/hour)
    20 to 30 inches: moderate (0.6 to 2 inches/hour)
    30 to 50 inches: moderate (0.6 to 2 inches/hour)
    50 to 56 inches: rapid (6 to 20 inches/hour)
    56 to 75 inches: rapid (6 to 20 inches/hour)

Cornish

Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: apparent
Flooding: occasional
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: silty alluvium derived from gneiss
Reaction (pH):
    0 to 12 inches: very strongly acid to slightly acid (4.5 to 6.5)
    12 to 21 inches: very strongly acid to slightly acid (4.5 to 6.5)
    21 to 35 inches: very strongly acid to slightly acid (4.5 to 6.5)
    35 to 42 inches: very strongly acid to slightly acid (4.5 to 6.5)
    42 to 48 inches: very strongly acid to slightly acid (4.5 to 6.5)
    48 to 53 inches: very strongly acid to slightly acid (4.5 to 6.5)
    53 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    12 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    21 to 35 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

35 to 42 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
42 to 48 inches: moderate to rapid (0.6 to 20 inches/hour)
48 to 53 inches: moderate to rapid (0.6 to 20 inches/hour)
53 to 72 inches: moderate to rapid (0.6 to 20 inches/hour)

Use and Management

Woodland

- Conducting road construction and harvesting operations during months of low stream flow, and use of riparian buffers will help overcome construction limitations of haul roads caused by occasional flooding.
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Limiting construction of log landings on occasionally flooded soils, and conducting harvesting operations during months when flooding is least likely to occur will help overcome these limitations. Riparian setbacks should be at least 200 feet.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species in areas of Cornish soils will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table “Trees to Manage” section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.

- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

350B—Duxbury fine sandy loam, 3 to 15 percent slopes, very stony

Setting

This broadly defined map unit consists of soils that are loamy over sandy or gravelly, very deep, gently sloping to strongly sloping, and well drained. It is on summits of outwash terraces in the Adirondack Upland. Areas range from 20 to 300 acres in size.

Map Unit Composition

Major Components
Duxbury, very stony: 85 percent

Inclusions
Colton: 4 percent
Adams: 3 percent
Champlain: 2 percent
Becket: 1 percent
Croghan: 1 percent
Fernlake: 1 percent
Monadnock: 1 percent
Sunapee: 1 percent
Unnamed: 1 percent

The excessively drained Colton, somewhat excessively drained Adams, Champlain and Fernlake, Becket and Monadnock, and moderately well drained Croghan and Sunapee soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton, Adams, and Champlain soils occupy similar positions, but Colton soils are sandy and gravelly, Adams and Champlain soils are sandy, and Champlain soils lack a spodic horizon. Becket, Fernlake, and Monadnock soils are on small areas underlain by till, and Fernlake soils are sandy. Croghan soils are in small depressions and are sandy. Sunapee soils are on small depressions and are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Duxbury, very stony: no
Hydrologic group:
Duxbury, very stony: A

Soil Properties and Qualities

Duxbury, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very stony
Landform: outwash terraces
Parent material: loamy lacustrine deposits over gravelly outwash derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 4 inches: extremely acid to slightly acid (3.5 to 6.5)
4 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
5 to 13 inches: extremely acid to slightly acid (3.5 to 6.5)
13 to 21 inches: extremely acid to slightly acid (3.5 to 6.5)
21 to 31 inches: very strongly acid to slightly acid (4.5 to 6.5)
31 to 36 inches: very strongly acid to slightly acid (4.5 to 6.5)
36 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
21 to 31 inches: very rapid (20 to 100 inches/hour)
31 to 36 inches: very rapid (20 to 100 inches/hour)
36 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

363A—Adams loamy sand, 0 to 3 percent slopes

Setting

This broadly defined map unit consists of soils that are sandy, very deep, nearly level, and somewhat excessively drained. It is on summits of deltas, kame terraces, outwash plains in the Adirondack Upland. Areas range from 30 to 160 acres in size.

Map Unit Composition

Major Components
Adams: 75 percent

Inclusions
Colton: 5 percent
Duxbury: 5 percent
Croghan: 3 percent
Champlain: 2 percent
Fernlake: 2 percent
Monadnock: 2 percent
Naumburg: 2 percent
Nicholville: 2 percent
Unnamed: 2 percent

The excessively drained Colton, well drained Duxbury and Monadnock, moderately well drained Croghan and Nicholville, Champlain, Fernlake, and somewhat poorly drained Naumburg soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton, Duxbury, and Champlain soils occupy similar positions, but Colton soils are sandy and gravelly; Duxbury soils are loamy over gravelly or sandy; and Champlain soils lack a spodic horizon. Fernlake and Monadnock soils occupy similar positions, but are on small areas underlain by till, and Monadnock soils are loamy over sandy or gravelly. Croghan, Naumburg, and Nicholville soils are on small depressions and Nicholville soils are silty. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
    Adams: no
Hydrologic group:
    Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: deltas, kame terraces, outwash plains
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
    4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
    5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
    8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
    14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
    23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
    2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
    5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
    8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
    14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
    23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment

of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

363B—Adams loamy sand, 3 to 15 percent slopes

Setting

This broadly defined map unit consists of soils that are sandy, very deep, gently to strongly sloping, and somewhat excessively drained. It is on summits, shoulders, and backslopes of deltas, kame terraces, and outwash plains in the Adirondack Upland. Areas range from 15 to 190 acres in size.

Map Unit Composition

Major Components
Adams: 75 percent

Inclusions
Colton: 5 percent
Duxbury: 5 percent
Champlain: 3 percent
Nicholville: 3 percent
Croghan: 2 percent
Fernlake: 2 percent
Monadnock: 2 percent
Unnamed: 2 percent
Naumburg: 1 percent

The excessively drained Colton, well drained Duxbury and Monadnock, moderately well drained Croghan and Nicholville, Champlain, Fernlake, and somewhat poorly drained Naumburg soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton, Duxbury, and Champlain soils occupy similar positions, but Colton soils are sandy and gravelly, Duxbury soils are loamy over gravelly or sandy, and Champlain soils lack a spodic horizon. Fernlake and Monadnock soils occupy similar positions, but are on small areas underlain by till, and Monadnock soils are loamy over sandy or gravelly. Croghan, Naumburg, and Nicholville soils are on small depressions, and Nicholville soils are silty. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: deltas, outwash plains, kame terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
 2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
 5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
 8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
 14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
 23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
 2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
 5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
 8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
 14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
 23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland
- Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

363D—Adams loamy sand, 15 to 35 percent slopes

Setting

This broadly defined map unit consists of soils that are sandy, very deep, moderately steep and steep, and somewhat excessively drained. It is on backslopes of deltas, kame terraces, outwash plains in the Adirondack Upland. Areas range from 10 to 310 acres in size.

Map Unit Composition

Major Components
Adams: 75 percent

Inclusions
Colton: 5 percent
Duxbury: 5 percent
Champlain: 4 percent
Nicholville: 4 percent
Fernlake: 2 percent
Monadnock: 2 percent
Unnamed: 2 percent
Croghan: 1 percent

The excessively drained Colton, well drained Duxbury and Monadnock, moderately well drained Croghan and Nicholville, Champlain, and Fernlake soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton, Duxbury, and Champlain soils occupy similar positions, but Colton soils are sandy and gravelly, Duxbury soils are loamy over gravelly or sandy, and Champlain soils lack a spodic horizon. Fernlake and Monadnock soils occupy similar positions, but are on small areas underlain by till, and Monadnock soils are loamy over sandy or gravelly. Croghan and Nicholville soils occupy small drainageways, and Nicholville soils are silty. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6e
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: deltas, outwash plains, kame terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)

2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and re-seeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

363F—Adams loamy sand, 35 to 60 percent slopes

Setting

This broadly defined map unit consists of soils that are sandy, very deep, very steep, and somewhat excessively drained. It is on backslopes of deltas, kame terraces, outwash plains in the Adirondack Upland. Areas range from 35 to 240 acres in size.

Map Unit Composition

Major Components
Adams: 75 percent

Inclusions
Colton: 5 percent
Duxbury: 5 percent
Champlain: 4 percent
Nicholville: 4 percent
Fernlake: 2 percent
Monadnock: 2 percent
Unnamed: 2 percent
Croghan: 1 percent

The excessively drained Colton, well drained Duxbury and Monadnock, moderately well drained Croghan and Nicholville, Champlain, and Fernlake soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton, Duxbury, and Champlain soils occupy similar positions, but Colton soils are sandy and gravelly, Duxbury soils are loamy over gravelly or sandy, and Champlain soils lack a spodic horizon. Fernlake and Monadnock soils occupy similar positions, but are on small areas underlain by till, and Monadnock soils are loamy over sandy or gravelly. Croghan and Nicholville soils occupy small drainageways, and Nicholville soils are silty. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7e
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low

Landform: deltas, outwash plains, kame terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
 2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
 5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
 8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
 14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
 23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
 2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
 5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
 8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
 14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
 23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

365A—Naumburg-Croghan complex, 0 to 3 percent slopes

Setting

This broadly defined map unit consists of soils that are sandy, very deep, nearly level, and somewhat poorly drained and moderately well drained respectively. It is on footslopes of deltas, outwash plains, stream terraces in the Adirondack Upland. Areas range from 10 to 165 acres in size.

Map Unit Composition

Major Components
Naumburg: 45 percent
Croghan: 30 percent

Inclusions
Adams: 5 percent
Hailesboro: 5 percent
Searsport: 5 percent
Mooers: 3 percent
Roundabout: 3 percent
Sunapee: 3 percent
Unnamed: 1 percent

The somewhat excessively drained Adams, Hailesboro, very poorly drained Searsport, Mooers, Roundabout, and Sunapee soils may be included in areas of this map unit. Also included are areas of poorly drained sandy soils. Adams soils occupy higher positions. Mooers and Sunapee soils occupy similar positions as Croghan soils, but Mooers soils lack a spodic horizon, and Sunapee soils are loamy. Hailesboro and Roundabout soils occupy similar positions as Naumburg soils, but Hailesboro soils are silty and clayey, and Roundabout soils are silty. Searsport soils are on depressions and drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
  Naumburg: no
  Croghan: no
Hydrologic group:
  Naumburg: A/D
  Croghan: A/D

Soil Properties and Qualities

Naumburg
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: apparent
Flooding: none

Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Landform: deltas, outwash plains, stream terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 7 inches: extremely acid to strongly acid (3.5 to 5.5)
7 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
10 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
18 to 31 inches: extremely acid to strongly acid (3.5 to 5.5)
31 to 54 inches: very strongly acid to slightly acid (4.5 to 6.5)
54 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 7 inches: rapid (6 to 20 inches/hour)
7 to 10 inches: rapid (6 to 20 inches/hour)
10 to 18 inches: rapid (6 to 20 inches/hour)
18 to 31 inches: rapid (6 to 20 inches/hour)
31 to 54 inches: rapid or very rapid (6 to 100 inches/hour)
54 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Croghan
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very low
Landform: deltas, outwash plains, stream terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
23 to 29 inches: very strongly acid to moderately acid (4.5 to 6.0)
29 to 42 inches: very strongly acid to moderately acid (4.5 to 6.0)
42 to 45 inches: very strongly acid to moderately acid (4.5 to 6.0)
45 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
3 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
23 to 29 inches: moderately rapid to very rapid (2 to 100 inches/hour)

29 to 42 inches: moderately rapid to very rapid (2 to 100 inches/hour)
42 to 45 inches: moderately rapid to very rapid (2 to 100 inches/hour)
45 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland
- Locating roads in areas of better drained soils, avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness.
- Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Applying gravel base material to log landings during construction and operation will help overcome limitations caused by sandy surfaces.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Maintaining a vegetative cover or spreading slash over exposed soil areas will help overcome harvest equipment operability limitations caused by sandy surfaces.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome the windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.

- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

367A—Searsport-Haplosaprists-Naumburg complex, 0 to 3 percent slopes

Setting

This broadly defined map unit consists of soils that are sandy and mucky, very deep, nearly level, and very poorly drained and somewhat poorly drained respectively. They are on deltas, outwash plains, stream terraces, and bogs in the Adirondack Upland. Areas range from 10 to 380 acres in size.

Map Unit Composition

Major Components
Searsport: 40 percent
Haplosaprists: 30 percent
Naumburg: 20 percent

Inclusions
Croghan: 2 percent
Roundabout: 2 percent
Rumney: 2 percent
Wegatchie: 2 percent
Tahawus: 1 percent
Unnamed: 1 percent

The moderately well drained Croghan, Roundabout, poorly drained Rumney and Wegatchie, and Tahawus soils may be included in areas of this map unit. Also included are areas of poorly drained sandy soils. Croghan soils occupy higher positions. Roundabout soils occupy similar positions as Naumburg soils, but are silty. Wegatchie soils occupy slightly lower positions than Naumburg soils, and are silty and clayey. Rumney soils occupy small flood plain positions adjacent to streams and are loamy. Tahawus soils occupy similar positions as Searsport and Haplosaprists soils, but are on small areas underlain by till. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Searsport: yes
  Haplosaprists: yes
  Naumburg: no
Hydrologic group:
  Searsport: B/D
  Haplosaprists: B/D
  Naumburg: A/D

Soil Properties and Qualities

Searsport
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Landform: deltas, outwash plains, stream terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 4 inches: extremely acid to slightly acid (3.5 to 6.5)
  4 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 14 inches: extremely acid to slightly acid (3.5 to 6.5)
  14 to 22 inches: very strongly acid to slightly acid (4.5 to 6.5)
  22 to 32 inches: very strongly acid to slightly acid (4.5 to 6.5)
  32 to 40 inches: very strongly acid to slightly acid (4.5 to 6.5)
  40 to 48 inches: very strongly acid to slightly acid (4.5 to 6.5)
  48 to 54 inches: very strongly acid to slightly acid (4.5 to 6.5)
  54 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 4 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  4 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  9 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
  14 to 22 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  22 to 32 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  32 to 40 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  40 to 48 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  48 to 54 inches: moderate to very rapid (0.6 to 100 inches/hour)
  54 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Haplosaprists
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: bogs, swamps
Parent material: organic material over sandy glaciofluvial deposits
Reaction (pH):
  0 to 10 inches: ultra acid to very strongly acid (1.8 to 4.5)
  10 to 20 inches: ultra acid to very strongly acid (1.8 to 4.5)
  20 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 10 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

10 to 20 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
20 to 72 inches: moderate to very rapid (0.6 to 100 inches/hour)

Naumburg
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
Water table kind: apparent
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Landform: deltas, outwash plains, stream terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 7 inches: extremely acid to strongly acid (3.5 to 5.5)
7 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
10 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
18 to 31 inches: extremely acid to strongly acid (3.5 to 5.5)
31 to 54 inches: very strongly acid to slightly acid (4.5 to 6.5)
54 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 7 inches: rapid (6 to 20 inches/hour)
7 to 10 inches: rapid (6 to 20 inches/hour)
10 to 18 inches: rapid (6 to 20 inches/hour)
18 to 31 inches: rapid (6 to 20 inches/hour)
31 to 54 inches: rapid or very rapid (6 to 100 inches/hour)
54 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness.
- Areas of poorly drained and very poorly drained soils and areas of soils that are subject to ponding should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.

- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding, flooding, or general wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- Subsidence of the organic material reduces the load bearing capacity of these soils.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: The SeA and 367A map units have components with textures below 40 inches that are finer than typical for the range of the Searsport series.

This should not significantly affect use and management on a local basis for most purposes.

375A—Colton-Adams complex, 0 to 3 percent slopes

Setting

This broadly defined map unit consists of soils that are gravelly and sandy, very deep, nearly level, and excessively drained and somewhat excessively drained respectively. It is on summits of kame terraces and outwash plains in the Adirondack Upland. Areas range from 20 to 235 acres in size.

Map Unit Composition

Major Components
Colton: 45 percent
Adams: 30 percent

Inclusions
Duxbury: 5 percent
Monadnock: 5 percent
Unnamed: 5 percent
Croghan: 4 percent
Hermon: 3 percent
Champlain: 2 percent
Fernlake: 1 percent

The well drained Duxbury and Monadnock, moderately well drained Croghan, Hermon, Champlain, and Fernlake soils may be included in areas of this map unit. Also included are gravelly areas that are moderately well drained. Duxbury and Champlain soils occupy similar positions, but Duxbury soils are loamy over gravelly or sandy, and Champlain soils lack a spodic horizon. Fernlake, Hermon and Monadnock soils occupy similar positions, but are on small areas underlain by till, and Monadnock soils are loamy over sandy or gravelly. Croghan soils are on small depressions. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Colton: no
  Adams: no
Hydrologic group:
  Colton: A
  Adams: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low

Surface runoff potential: negligible
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 72 inches: very rapid (20 to 100 inches/hour)

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: kame terraces, outwash plains
Parent material: sandy glaciofluvial deposits derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

- Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

375C—Colton-Adams complex, 3 to 15 percent slopes

Setting

This broadly defined map unit consists of soils that are gravelly and sandy, very deep, gently to strongly sloping, and excessively drained and somewhat excessively drained respectively. It is on shoulders and backslopes of kame terraces and outwash plains in the Adirondack Upland. Areas range from 10 to 360 acres in size.

Map Unit Composition

Major Components
Colton: 45 percent
Adams: 30 percent

Inclusions
Duxbury: 5 percent
Monadnock: 5 percent
Unnamed: 5 percent
Croghan: 4 percent
Hermon: 3 percent
Champlain: 2 percent
Fernlake: 1 percent

The well drained Duxbury and Monadnock, moderately well drained Croghan, Hermon, Champlain, and Fernlake soils may be included in areas of this map unit. Also included are gravelly areas that are moderately well drained. Duxbury and Champlain soils occupy similar positions, but Duxbury soils are loamy over gravelly or sandy, and Champlain soils lack a spodic horizon. Fernlake, Hermon and Monadnock soils occupy similar positions, but are on small areas underlain by till, and Monadnock soils are loamy over sandy or gravelly. Croghan soils are on small depressions. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e

Hydric soil rating:
Colton: no
Adams: no
Hydrologic group:
Colton: A
Adams: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 72 inches: very rapid (20 to 100 inches/hour)

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: outwash plains, kame terraces
Parent material: sandy glaciofluvial deposits derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)

8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

375D—Colton-Adams complex, 15 to 35 percent slopes

Setting

This broadly defined map unit consists of soils that are gravelly and sandy, very deep, moderately steep and steep, and excessively drained and somewhat excessively drained respectively. It is on backslopes of kame terraces and outwash plains in the Adirondack Upland. Areas range from 20 to 415 acres in size.

Map Unit Composition

Major Components
Colton: 45 percent
Adams: 30 percent

Inclusions
Duxbury: 5 percent
Monadnock: 5 percent
Unnamed: 5 percent
Fernlake: 4 percent
Hermon: 3 percent
Champlain: 2 percent
Croghan: 1 percent

The well drained Duxbury and Monadnock, moderately well drained Croghan, Hermon, Champlain, and Fernlake soils may be included in areas of this map unit. Also included are gravelly areas that are moderately well drained. Duxbury and Champlain soils occupy similar positions, but Duxbury soils are loamy over gravelly or sandy, and Champlain soils lack a spodic horizon. Fernlake, Hermon and Monadnock soils occupy similar positions, but are on small areas underlain by till, and Monadnock soils are loamy over sandy or gravelly. Croghan soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7e
Hydric soil rating:
  Colton: no
  Adams: no
Hydrologic group:
  Colton: A
  Adams: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
  6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
  21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
- 3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
- 6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
- 13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
- 21 to 72 inches: very rapid (20 to 100 inches/hour)

Adams

Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: outwash plains, kame terraces
Parent material: sandy glaciofluvial deposits derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.

- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

375F—Colton-Adams complex, 35 to 60 percent slopes

Setting

This broadly defined map unit consists of soils that are gravelly and sandy, very deep, very steep, and excessively drained and somewhat excessively drained respectively. It is on backslopes of kame terraces and outwash plains in the Adirondack Upland. Areas range from 35 to 415 acres in size.

Map Unit Composition

Major Components
Colton: 45 percent
Adams: 30 percent

Inclusions
Duxbury: 5 percent
Monadnock: 5 percent
Unnamed: 5 percent
Fernlake: 4 percent
Hermon: 3 percent
Champlain: 2 percent
Croghan: 1 percent

The well drained Duxbury and Monadnock, moderately well drained Croghan, Hermon, Champlain, and Fernlake soils may be included in areas of this map unit. Also

included are gravelly areas that are moderately well drained. Duxbury and Champlain soils occupy similar positions, but Duxbury soils are loamy over gravelly or sandy, and Champlain soils lack a spodic horizon. Fernlake, Hermon and Monadnock soils occupy similar positions, but are on small areas underlain by till, and Monadnock soils are loamy over sandy or gravelly. Croghan soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7e
Hydric soil rating:
    Colton: no
    Adams: no
Hydrologic group:
    Colton: A
    Adams: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
    0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
    1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
    3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
    6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
    13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
    21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
    1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
    2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
    3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
    6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
    13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
    21 to 72 inches: very rapid (20 to 100 inches/hour)

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low

Shrink-swell potential: low
Surface runoff potential: low
Landform: outwash plains, kame terraces
Parent material: sandy glaciofluvial deposits derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland

- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.

- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

649C—Monadnock-Tunbridge-Tahawus complex, 0 to 15 percent slopes, rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy over sandy or gravelly, loamy, and sandy, very deep to moderately deep, gently sloping to strongly sloping, and well drained or very poorly drained. It is on summits, shoulders, backslopes, and toeslopes of hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 610 acres in size.

Map Unit Composition

Major Components
Monadnock, rocky, very bouldery: 40 percent
Tunbridge, rocky, very bouldery: 30 percent
Tahawus, very bouldery: 20 percent

Inclusions
Becket: 2 percent
Lyman: 2 percent
Adirondack: 1 percent
Burnt Vly: 1 percent
Knob Lock: 1 percent
Rock outcrop: 1 percent
Sunapee: 1 percent
Unnamed: 1 percent

The Becket, Lyman, and Knob Lock, moderately well drained Sunapee, somewhat poorly drained Adirondack, and Burnt Vly soils may be included in areas of this map unit. Also included are areas of mineral soils that are very shallow to bedrock.

Becket, Lyman, and Knob Lock soils occupy similar positions as Monadnock and Tunbridge soils, but Becket soils have a dense substratum, Lyman soils are shallow, and Knob Lock soils are organic and very shallow to shallow. Sunapee soils occupy slightly lower positions than Monadnock soils. Adirondack soils occupy slightly higher positions than Tahawus soils, and have a dense substratum. Burnt Vly soils occupy similar positions as Tahawus soils but are mucky. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Monadnock, rocky, very bouldery: no
  Tunbridge, rocky, very bouldery: no
  Tahawus, very bouldery: yes

Hydrologic group:
Monadnock, rocky, very bouldery: A
Tunbridge, rocky, very bouldery: B
Tahawus, very bouldery: B/D

Soil Properties and Qualities

Monadnock, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Tunbridge, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)

18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
27 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 inches, bedrock

Tahawus, very bouldery
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy till derived from gneiss
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5)
2 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
9 to 17 inches: very strongly acid to slightly acid (4.5 to 6.5)
17 to 24 inches: moderately acid to neutral (5.6 to 7.3)
24 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
0 to 2 inches: moderately slow to rapid (0.2 to 20 inches/hour)
2 to 5 inches: moderately slow to rapid (0.2 to 20 inches/hour)
5 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
9 to 17 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
17 to 24 inches: moderately rapid to very rapid (2 to 100 inches/hour)
24 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness in some areas of these soils.

- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Areas of poorly drained and very poorly drained soils and areas of soils that are subject to ponding should be avoided when locating log landings.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness in some areas.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard in some areas of these soils.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness in some areas of these soils.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness in some areas of these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.
- The depth to bedrock and hardness of the bedrock in some areas of these soils greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The seasonal high water table severely limits the capacity of some areas of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Because of the potential for ponding, some areas of these soils are very limited as a site for dwellings with basements.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata in some areas of these soils may limit the proper treatment of the effluent from septic systems. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.

- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- The somewhat limited depth to bedrock in some areas of these soils reduces the filtering capacity and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Because of ponding, some areas of these soils are very limited as a site for septic tank absorption fields.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.
- Depth to hard bedrock in some areas of these soils may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Some areas of these soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.

650C—Monadnock-Adams-Colton complex, 3 to 15 percent slopes, bouldery

Setting

This broadly defined map unit consists of soils that are loamy over sandy or gravelly, sandy, and gravelly, very deep, gently sloping to strongly sloping, and well drained, somewhat excessively drained, and excessively drained respectively. It is on shoulders and backslopes of kame moraines in the Adirondack Upland. Areas range from 20 to 550 acres in size.

Map Unit Composition

Major Components

Monadnock, bouldery: 40 percent
Adams: 30 percent
Colton: 20 percent

Inclusions

Duxbury: 2 percent
Unnamed: 2 percent
Becket: 1 percent
Croghan: 1 percent
Fernlake: 1 percent
Naumburg: 1 percent
Nicholville: 1 percent
Sunapee: 1 percent

The Duxbury, Becket, moderately well drained Croghan, Sunapee, and Nicholville, Fernlake, and somewhat poorly drained Naumburg soils may be included in areas of this map unit. Also included are areas that have a very bouldery surface. Duxbury, Becket, and Fernlake soils occupy similar positions, but Becket soils have a dense substratum. Croghan, Sunapee, and Nicholville soils occupy slightly lower positions, and Nicholville soils are silty. Naumburg soils are on small depressions or drainageways. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Monadnock, bouldery: no
  Adams: no
  Colton: no
Hydrologic group:
  Monadnock, bouldery: >
  Adams: A
  Colton: A

Soil Properties and Qualities

Monadnock, bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: bouldery
Landform: kame moraines
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
  12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
  19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
  30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
  37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: kame moraines
Parent material: sandy glaciofluvial deposits derived from gneiss
Reaction (pH):
 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
 2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
 5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
 8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
 14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
 23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
 2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
 5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
 8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
 14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
 23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: kame moraines
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
 3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
 6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
 13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
 21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
 2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
 3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
 6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
 13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
 21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland

- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability due to strongly sloping areas.
- Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in Colton and Adams soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata in some areas of these soils may limit the proper treatment of the effluent from septic systems. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- The excessive rate of fluid movement through some areas of these soils limits the proper treatment of effluent from septic systems. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action in areas of Monadnock soils, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

650D—Monadnock-Adams-Colton complex, 15 to 35 percent slopes, bouldery

Setting

This broadly defined map unit consists of soils that are loamy over sandy or gravelly, sandy, and gravelly, very deep, moderately steep and steep, and well drained, somewhat excessively drained, and excessively drained respectively. It is on backslopes of kame moraines in the Adirondack Upland. Areas range from 15 to 610 acres in size.

Map Unit Composition

Major Components
Monadnock, bouldery: 40 percent
Adams: 30 percent
Colton: 20 percent

Inclusions
Duxbury: 2 percent
Unnamed: 2 percent
Becket: 1 percent
Croghan: 1 percent
Fernlake: 1 percent
Naumburg: 1 percent
Nicholville: 1 percent
Sunapee: 1 percent

The Duxbury and Becket, moderately well drained Croghan, Sunapee, and Nicholville, Fernlake, and somewhat poorly drained Naumburg soils may be included in areas of this map unit. Also included are areas that have a very bouldery surface. Duxbury, Becket, and Fernlake soils occupy similar positions, but Becket soils have a dense substratum. Croghan, Sunapee, and Nicholville soils occupy slightly lower positions, and Nicholville soils are silty. Naumburg soils are on drainageways. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
- Monadnock, bouldery: no
- Adams: no
- Colton: no

Hydrologic group:
- Monadnock, bouldery: A
- Adams: A
- Colton: A

Soil Properties and Qualities

Monadnock, bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: bouldery
Landform: kame moraines
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
- 12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)

19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Adams

Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: kame moraines
Parent material: sandy glaciofluvial deposits derived from gneiss

Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Colton

Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: kame moraines
Parent material: gravelly outwash derived from gneiss

Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)

2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations due to steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in Colton and Adams soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata in some areas of these soils may limit the proper treatment of the effluent from septic systems. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.

- The excessive rate of fluid movement through some areas of these soils limits the proper treatment of effluent from septic systems. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action in some areas of these soils, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

651D—Monadnock-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy over sandy or gravelly, and loamy, very deep to moderately deep, moderately steep and steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 3,400 acres in size.

Map Unit Composition

Major Components
Monadnock, rocky, very bouldery: 45 percent
Tunbridge, rocky, very bouldery: 30 percent

Inclusions
Becket: 5 percent
Fernlake: 5 percent
Knob Lock: 5 percent
Lyman: 5 percent
Sunapee: 3 percent
Rock outcrop: 1 percent
Unnamed: 1 percent

The Becket, Lyman, and Knob Lock, somewhat excessively drained Fernlake, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas of mineral soils that are very shallow to bedrock. Becket, Lyman, Knob Lock, and Fernlake soils occupy similar positions, but Becket soils have a dense substratum, Lyman soils are shallow, Knob Lock soils are organic and very shallow to shallow, and Fernlake soils are sandy. Sunapee soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Monadnock, rocky, very bouldery: no
  Tunbridge, rocky, very bouldery: no
Hydrologic group:
  Monadnock, rocky, very bouldery: A
  Tunbridge, rocky, very bouldery: B

Soil Properties and Qualities

Monadnock, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
- 12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
- 19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
- 30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
- 37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Tunbridge, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
- 7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
- 27 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 inches, bedrock

Use and Management

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations due to moderately deep soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata in these soils may limit the proper treatment of the effluent from septic systems in

some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.

- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- The somewhat limited depth to bedrock in some areas reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- Depth to hard bedrock in Tunbridge soils may limit site preparation such as shaping and grading and restrict installation of roads and streets.

653C—Monadnock fine sandy loam, 3 to 15 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy over sandy or gravelly, very deep, gently sloping to strongly sloping, and well drained. It is on shoulders and backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 15 to 410 acres in size.

Map Unit Composition

Major Components
Monadnock, very bouldery: 85 percent

Inclusions
Becket: 5 percent
Adams: 2 percent
Colton: 2 percent
Fernlake: 2 percent
Sunapee: 2 percent
Hermon: 1 percent
Unnamed: 1 percent

The Becket, somewhat excessively drained Adams, Fernlake, and Hermon, excessively drained Colton, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Adams, Colton, Fernlake, and Hermon soils occupy similar positions, but Becket soils have a dense substratum, Adams and Colton soils are underlain by sandy and gravelly outwash, and Fernlake and Hermon soils are sandy. Sunapee soils occupy slightly lower positions. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Monadnock, very bouldery: no
Hydrologic group:
    Monadnock, very bouldery: A

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
    3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
    12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
    19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
    30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
    37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
    0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
    2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
    37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery or extremely stony surface conditions.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

653D—Monadnock fine sandy loam, 15 to 35 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy over sandy or gravelly, very deep, moderately steep and steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 15 to 1,260 acres in size.

Map Unit Composition

Major Components

Monadnock, very bouldery: 85 percent

Inclusions

Becket: 5 percent
Adams: 2 percent
Colton: 2 percent
Fernlake: 2 percent
Hermon: 2 percent
Sunapee: 1 percent
Unnamed: 1 percent

The Becket, somewhat excessively drained Adams, Fernlake, and Hermon, excessively drained Colton, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Adams, Colton, Fernlake, and Hermon soils occupy similar positions, but Becket soils have a dense substratum, Adams and Colton soils are underlain by sandy and gravelly outwash, and Fernlake and Hermon soils are sandy. Sunapee soils are on drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Monadnock, very bouldery: no
Hydrologic group:
  Monadnock, very bouldery: A

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
  12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
  19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
  30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
  37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.

- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations due to steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

655B—Sunapee-Monadnock complex, 3 to 15 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy over sandy or gravelly, very deep, gently sloping to strongly sloping, and moderately well drained to well

drained. It is on backslopes and footslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 360 acres in size.

Map Unit Composition

Major Components
Sunapee, very bouldery: 45 percent
Monadnock, very bouldery: 30 percent

Inclusions
Adirondack: 5 percent
Becket: 5 percent
Fernlake: 5 percent
Adams: 4 percent
Skerry: 3 percent
Unnamed: 3 percent

The Becket, somewhat excessively drained Adams and Fernlake, Skerry, and somewhat poorly drained Adirondack soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Adams, and Fernlake soils occupy similar positions as Monadnock soils, but Becket soils have a dense substratum, Adams soils are underlain by sandy outwash, and Fernlake soils are sandy. Skerry soils occupy similar positions as Sunapee soils, but have a dense substratum. Adirondack soils are on depressions and drainageways and have a dense substratum. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Sunapee, very bouldery: no
  Monadnock, very bouldery: no
Hydrologic group:
  Sunapee, very bouldery: B
  Monadnock, very bouldery: A

Soil Properties and Qualities

Sunapee, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
  4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
  5 to 7 inches: extremely acid to strongly acid (3.5 to 5.5)
  7 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)

14 to 19 inches: extremely acid to strongly acid (3.5 to 5.5)
19 to 31 inches: extremely acid to strongly acid (3.5 to 5.5)
31 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 31 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
31 to 72 inches: moderately rapid or rapid (2 to 20 inches/hour)

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation in some areas of these soils, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard. Consult the Water Features table for months of seasonal saturation.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness in some areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table in some areas severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table in Sunapee soils impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

657C—Monadnock-Tahawus complex, 3 to 15 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy over sandy or gravelly, and sandy, very deep, gently sloping to strongly sloping, and well drained or very poorly drained. It is on shoulders, backslopes, and toeslopes of till plains in the Adirondack Upland. Areas range from 20 to 1,205 acres in size.

Map Unit Composition

Major Components
Monadnock, very bouldery: 60 percent
Tahawus, very bouldery: 30 percent

Inclusions
Adirondack: 2 percent
Burnt Vly: 2 percent
Sunapee: 2 percent
Adams: 1 percent
Becket: 1 percent
Colton: 1 percent
Unnamed: 1 percent

The somewhat poorly drained Adirondack, Burnt Vly, moderately well drained Sunapee, somewhat excessively drained Adams, Becket, and excessively drained Colton soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Adirondack soils occupy slightly higher positions than Tahawus soils and have dense substratum. Burnt Vly soils occupy similar positions as Tahawus soils but are mucky. Sunapee soils occupy slightly lower positions than Monadnock soils. Becket, Adams, and Colton soils occupy similar positions as Monadnock soils, but Becket soils have a dense substratum, and Adams and Colton soils are underlain by sandy and gravelly outwash. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Monadnock, very bouldery: no
    Tahawus, very bouldery: yes
Hydrologic group:
    Monadnock, very bouldery: A
    Tahawus, very bouldery: B/D

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches

Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: till plains
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
  12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
  19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
  30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
  37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Tahawus, very bouldery
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: till plains
Parent material: sandy till derived from gneiss
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5)
  2 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
  5 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
  9 to 17 inches: very strongly acid to slightly acid (4.5 to 6.5)
  17 to 24 inches: moderately acid to neutral (5.6 to 7.3)
  24 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
  0 to 2 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  2 to 5 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  5 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  9 to 17 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  17 to 24 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  24 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland

- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Locating roads on better drained soils or limiting road construction to drier parts of the year in some areas of these soils will help overcome construction limitations of haul roads due to wetness.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Areas of poorly drained and very poorly drained soils and areas of soils that are subject to ponding should be avoided when locating log landings.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness in some areas of these soils.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard in some areas of these soils.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness in some areas of these soils.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness in some areas of these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.
- Because of the potential for ponding, some areas of these soils are very limited as a site for dwellings with basements.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas.

Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.

- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Because of ponding, some areas of these soils are very limited as a site for septic tank absorption fields.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.
- Some areas of these soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.

657D—Monadnock-Tahawus complex, 15 to 35 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy over sandy or gravelly, and sandy, very deep, moderately steep and steep, and well drained or very poorly drained. It is on backslopes and toeslopes of till plains in the Adirondack Upland. Areas range from 40 to 400 acres in size.

Map Unit Composition

Major Components
Monadnock, very bouldery: 60 percent
Tahawus, very bouldery: 30 percent

Inclusions
Adams: 2 percent
Becket: 2 percent
Unnamed: 2 percent
Adirondack: 1 percent
Burnt Vly: 1 percent
Colton: 1 percent
Sunapee: 1 percent

The somewhat excessively drained Adams, Becket, somewhat poorly drained Adirondack, Burnt Vly, excessively drained Colton, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Adams, and Colton soils occupy similar positions as Monadnock soils, but Becket soils have a dense substratum, and Adams and Colton soils are underlain by sandy and gravelly outwash. Adirondack soils occupy slightly

higher positions than Tahawus soils and have a dense substratum. Burnt Vly soils occupy similar positions as Tahawus soils but are mucky. Sunapee soils occupy slightly lower positions than Monadnock soils. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Monadnock, very bouldery: no
  Tahawus, very bouldery: yes
Hydrologic group:
  Monadnock, very bouldery: A
  Tahawus, very bouldery: B/D

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: till plains
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
  12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
  19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
  30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
  37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Tahawus, very bouldery
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high

Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: till plains
Parent material: sandy till derived from gneiss
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5)
2 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
9 to 17 inches: very strongly acid to slightly acid (4.5 to 6.5)
17 to 24 inches: moderately acid to neutral (5.6 to 7.3)
24 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
0 to 2 inches: moderately slow to rapid (0.2 to 20 inches/hour)
2 to 5 inches: moderately slow to rapid (0.2 to 20 inches/hour)
5 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
9 to 17 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
17 to 24 inches: moderately rapid to very rapid (2 to 100 inches/hour)
24 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Locating roads on better drained soils or limiting road construction to drier parts of the year in some areas of these soils will help overcome construction limitations of haul roads caused by wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Areas of poorly drained and very poorly drained soils and areas of soils that are subject to ponding should be avoided when locating log landings.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment

operability limitations caused by wetness in some areas of these soils.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges in some areas of these soils may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness in some areas of these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.
- Because of the potential for ponding, some areas of these soils are very limited as a site for dwellings with basements.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Because of ponding, some areas of these soils are very limited as a site for septic tank absorption fields.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- Some areas of these soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.

661C—Hermon gravelly loamy sand, 3 to 15 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are sandy and gravelly, very deep, gently sloping to strongly sloping, and somewhat excessively drained. It is on backslopes, shoulders, and summits of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 15 to 325 acres in size.

Map Unit Composition

Major Components
Hermon, very bouldery: 85 percent

Inclusions
Monadnock: 4 percent
Colton: 3 percent
Fernlake: 3 percent
Becket: 2 percent
Adams: 1 percent
Sunapee: 1 percent
Unnamed: 1 percent

The well drained Monadnock and Becket, excessively drained Colton, Fernlake, Adams, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Monadnock, Fernlake, Becket, Colton, and Adams soils occupy similar positions, but Monadnock soils are loamy over gravelly or sandy, Fernlake soils have less rock fragments, Becket soils are loamy, and Colton and Adams soils are underlain by sandy and gravelly outwash. Sunapee soils occupy slightly lower positions and are loamy. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Hermon, very bouldery: no
Hydrologic group:
  Hermon, very bouldery: A

Soil Properties and Qualities

Hermon, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy and gravelly ablation till derived from gneiss

Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
- 5 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
- 10 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
- 20 to 29 inches: strongly acid or moderately acid (5.1 to 6.0)
- 29 to 38 inches: strongly acid or moderately acid (5.1 to 6.0)
- 38 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 5 to 10 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 10 to 20 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 20 to 29 inches: very rapid (20 to 100 inches/hour)
- 29 to 38 inches: very rapid (20 to 100 inches/hour)
- 38 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.

- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

661D—Hermon gravelly loamy sand, 15 to 35 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are sandy and gravelly, very deep, moderately steep and steep, and somewhat excessively drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 25 to 240 acres in size.

Map Unit Composition

Major Components
Hermon, very bouldery: 85 percent

Inclusions
Monadnock: 4 percent
Colton: 3 percent
Fernlake: 3 percent
Adams: 2 percent
Becket: 2 percent
Unnamed: 1 percent

The well drained Monadnock and Becket, excessively drained Colton, Fernlake, and Adams soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Monadnock, Fernlake, Becket, Colton, and Adams soils occupy similar positions, but Monadnock soils are loamy over gravelly or sandy, Fernlake soils have less rock fragments, Becket soils are loamy, and Colton and Adams soils are underlain by sandy and gravelly outwash. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Hermon, very bouldery: no
Hydrologic group:
  Hermon, very bouldery: A

Soil Properties and Qualities

Hermon, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low

Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy and gravelly ablation till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
- 5 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
- 10 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
- 20 to 29 inches: strongly acid or moderately acid (5.1 to 6.0)
- 29 to 38 inches: strongly acid or moderately acid (5.1 to 6.0)
- 38 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 5 to 10 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 10 to 20 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 20 to 29 inches: very rapid (20 to 100 inches/hour)
- 29 to 38 inches: very rapid (20 to 100 inches/hour)
- 38 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

661F—Hermon gravelly loamy sand, 35 to 60 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are sandy and gravelly, very deep, very steep, and somewhat excessively drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 130 acres in size.

Map Unit Composition

Major Components
Hermon, very bouldery: 85 percent

Inclusions
Monadnock: 4 percent
Colton: 3 percent
Fernlake: 3 percent
Adams: 2 percent
Becket: 2 percent
Unnamed: 1 percent

The well drained Monadnock and Becket, excessively drained Colton, Fernlake, and Adams soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Monadnock, Fernlake, Becket, Colton, and Adams soils occupy similar positions, but Monadnock soils are loamy over gravelly or sandy, Fernlake soils have less rock fragments, Becket soils are loamy, and Colton and Adams soils are underlain by sandy and gravelly outwash. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s

Hydric soil rating:
  Hermon, very bouldery: no
Hydrologic group:
  Hermon, very bouldery: A

Soil Properties and Qualities

Hermon, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy and gravelly ablation till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
  3 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
  5 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
  10 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
  20 to 29 inches: strongly acid or moderately acid (5.1 to 6.0)
  29 to 38 inches: strongly acid or moderately acid (5.1 to 6.0)
  38 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
  5 to 10 inches: moderately rapid or rapid (2 to 20 inches/hour)
  10 to 20 inches: moderately rapid or rapid (2 to 20 inches/hour)
  20 to 29 inches: very rapid (20 to 100 inches/hour)
  29 to 38 inches: very rapid (20 to 100 inches/hour)
  38 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

705B—Adirondack-Tahawus complex, 0 to 8 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy and sandy, very deep, nearly level to gently sloping, and somewhat poorly drained or very poorly drained. It is on toeslopes and footslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 10 to 825 acres in size.

Map Unit Composition

Major Components
Adirondack, very bouldery: 40 percent
Tahawus, very bouldery: 35 percent

Inclusions
Burnt Vly: 5 percent
Skerry: 5 percent
Sunapee: 5 percent
Rumney: 4 percent
Unnamed: 3 percent
Ampersand: 2 percent
Wilmington: 1 percent

The Burnt Vly, moderately well drained Skerry and Sunapee, poorly drained Rumney, and Ampersand and Wilmington soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Burnt Vly soils occupy similar positions as Tahawus soils but are mucky. Skerry and Sunapee soils occupy slightly higher positions than Adirondack soils, but Sunapee soils lack the dense substratum. Rumney soils occupy small flood plain deposits adjacent to streams. Ampersand and Wilmington soils have higher organic matter content. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Adirondack, very bouldery: no
  Tahawus, very bouldery: yes
Hydrologic group:
  Adirondack, very bouldery: C/D
  Tahawus, very bouldery: B/D

Soil Properties and Qualities

Adirondack, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
  6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
  8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
  9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
  18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
  26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
  34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
  43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  4 to 6 inches: moderate (0.6 to 2 inches/hour)
  6 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 9 inches: moderate (0.6 to 2 inches/hour)
  9 to 18 inches: moderate (0.6 to 2 inches/hour)
  18 to 26 inches: moderate (0.6 to 2 inches/hour)
  26 to 34 inches: slow (0.06 to 0.2 inches/hour)

34 to 43 inches: slow (0.06 to 0.2 inches/hour)
43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Tahawus, very bouldery
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy till derived from gneiss
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5)
2 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
9 to 17 inches: very strongly acid to slightly acid (4.5 to 6.5)
17 to 24 inches: moderately acid to neutral (5.6 to 7.3)
24 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
0 to 2 inches: moderately slow to rapid (0.2 to 20 inches/hour)
2 to 5 inches: moderately slow to rapid (0.2 to 20 inches/hour)
5 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
9 to 17 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
17 to 24 inches: moderately rapid to very rapid (2 to 100 inches/hour)
24 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Areas of poorly drained and very poorly drained soils and areas of soils that are subject to ponding should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.

- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Because of the potential for ponding, some areas of these soils are very limited as a site for dwellings with basements.

Septic Tank Absorption Fields

- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Because of ponding, some areas of these soils are very limited as a site for septic tank absorption fields.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Some areas of these soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

721C—Becket-Tunbridge-Skerry complex, 3 to 15 percent slopes, rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep to moderately deep, gently sloping to strongly sloping, and well drained or moderately well drained. It is on backslopes and shoulders of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 790 acres in size.

Map Unit Composition

Major Components
Becket, rocky, very bouldery: 40 percent
Tunbridge, rocky, very bouldery: 30 percent
Skerry, rocky, very bouldery: 20 percent

Inclusions
Adirondack: 2 percent
Lyman: 2 percent
Monadnock: 2 percent
Rock outcrop: 2 percent
Unnamed: 2 percent

The somewhat poorly drained Adirondack, and Lyman and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Adirondack soils occupy lower positions than Skerry soils. Lyman and Monadnock soils occupy similar positions as Becket and Tunbridge soils, but Lyman soils are shallow, and Monadnock soils lack a dense substratum. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
- Becket, rocky, very bouldery: no
- Tunbridge, rocky, very bouldery: no
- Skerry, rocky, very bouldery: no

Hydrologic group:
- Becket, rocky, very bouldery: B
- Tunbridge, rocky, very bouldery: B
- Skerry, rocky, very bouldery: B/D

Soil Properties and Qualities

Becket, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
- Water table kind: perched

Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery

Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
- 3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
- 5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
- 9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
- 18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
- 33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
- 47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
- 7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
- 27 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 inches, bedrock

Skerry, rocky, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches

Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: extremely acid to slightly acid (3.5 to 6.5)
  4 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
  15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
  26 to 38 inches: extremely acid to slightly acid (3.5 to 6.5)
  38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  26 to 38 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.

- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery or extremely stony surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils and seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The seasonal high water table severely limits the capacity of some areas of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The somewhat limited depth to bedrock in some areas reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.
- Depth to hard bedrock in some areas may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- The seasonal high water table in some areas impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.

721D—Becket-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep to moderately deep, moderately steep and steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 2,410 acres in size.

Map Unit Composition

Major Components
Becket, rocky, very bouldery: 45 percent
Tunbridge, rocky, very bouldery: 30 percent

Inclusions
Lyman: 8 percent
Monadnock: 8 percent
Knob Lock: 3 percent
Skerry: 2 percent
Unnamed: 2 percent
Adirondack: 1 percent
Rock outcrop: 1 percent

The Lyman, Monadnock, and Knob Lock, moderately well drained Skerry, and somewhat poorly drained Adirondack soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Lyman, Monadnock, and Knob Lock soils occupy similar positions, but Lyman soils are shallow, Monadnock soils lack a dense substratum, and Knob Lock soils are organic and very shallow to shallow. Skerry soils occupy slightly lower positions, than Becket soils. Adirondack soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Becket, rocky, very bouldery: no
  Tunbridge, rocky, very bouldery: no
Hydrologic group:
  Becket, rocky, very bouldery: B
  Tunbridge, rocky, very bouldery: B

Soil Properties and Qualities

Becket, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches

Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
    3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
    5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
    9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
    18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
    33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
    47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
    0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
    2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
    47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
    0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
    1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
    3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
    4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
    7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
    13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
    18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
    27 inches, bedrock
Permeability:
    0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
    1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 inches, bedrock

Use and Management

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The somewhat limited depth to bedrock reduces the filtering capacity of some areas of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.

721F—Becket-Tunbridge complex, 35 to 60 percent slopes, rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep to moderately deep, very steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 240 acres in size.

Map Unit Composition

Major Components

Becket, rocky, very bouldery: 45 percent
Tunbridge, rocky, very bouldery: 30 percent

Inclusions

Lyman: 9 percent
Monadnock: 9 percent
Knob Lock: 3 percent
Unnamed: 3 percent
Rock outcrop: 1 percent

The Lyman, Monadnock, and Knob Lock soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Lyman, Monadnock,

and Knob Lock soils occupy similar positions, but Lyman soils are shallow. Monadnock soils lack a dense substratum and Knob Lock soils are organic and very shallow to shallow. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Becket, rocky, very bouldery: no
    Tunbridge, rocky, very bouldery: no
Hydrologic group:
    Becket, rocky, very bouldery: B
    Tunbridge, rocky, very bouldery: B

Soil Properties and Qualities

Becket, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
    3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
    5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
    9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
    18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
    33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
    47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
    0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
    2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
    47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate

Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
27 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 inches, bedrock

Use and Management

Woodland

- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness. Consult the Water Features table for months of seasonal saturation.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The somewhat limited depth to bedrock in some areas reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.

723C—Becket fine sandy loam, 3 to 15 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep, gently to strongly sloping, and well drained. It is on backslopes and shoulders of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 730 acres in size.

Map Unit Composition

Major Components

Becket, very bouldery: 85 percent

Inclusions

Skerry: 5 percent
Monadnock: 4 percent
Adirondack: 2 percent
Tunbridge: 2 percent
Unnamed: 2 percent

The moderately well drained Skerry, somewhat poorly drained Adirondack, Monadnock, and Tunbridge soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Skerry soils occupy lower positions. Adirondack soils occupy small depressions and drainageways. Monadnock and Tunbridge soils occupy similar positions, but Monadnock soils lack a dense substratum, and Tunbridge soils are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Becket, very bouldery: no
Hydrologic group:
  Becket, very bouldery: B

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
  18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
  33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
  47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10

percent will help overcome construction limitations of haul roads caused by seasonal wetness (fig. 12).
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the

Figure 12.—Vigorous forest growth on Becket soils in the town of North Hudson. Note the dark, moist subsoil in the upper part of the road cut. This image, taken in the early spring after snow melt, illustrates the dense lodgment till substratum creating a brief perched water table above its contact with the subsoil. Special care should be taken during timber harvesting operations to protect soils with seasonal high water tables from rutting damage and accelerated erosion.

freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

723D—Becket fine sandy loam, 15 to 35 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep, moderately steep and steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 985 acres in size.

Map Unit Composition

Major Components
Becket, very bouldery: 85 percent

Inclusions
Monadnock: 6 percent
Skerry: 4 percent
Tunbridge: 2 percent

Unnamed: 2 percent
Adirondack: 1 percent

The Monadnock, Tunbridge, moderately well drained Skerry, and somewhat poorly drained Adirondack soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Monadnock and Tunbridge soils occupy similar positions, but Monadnock soils lack a dense substratum, and Tunbridge soils are moderately deep to bedrock. Skerry soils occupy lower positions. Adirondack soils are on drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Becket, very bouldery: no
Hydrologic group:
  Becket, very bouldery: B

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
  18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
  33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
  47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10

percent will help overcome construction limitations of haul roads caused by seasonal wetness.

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.

- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

723F—Becket fine sandy loam, 35 to 60 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep, very steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 30 to 310 acres in size.

Map Unit Composition

Major Components
Becket, very bouldery: 85 percent

Inclusions
Monadnock: 8 percent
Tunbridge: 3 percent
Unnamed: 3 percent
Skerry: 1 percent

The Monadnock, Tunbridge, and moderately well drained Skerry soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Monadnock and Tunbridge soils occupy similar positions, but Monadnock soils lack a dense substratum, and Tunbridge soils are moderately deep to bedrock. Skerry soils are on drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Becket, very bouldery: no
Hydrologic group:
  Becket, very bouldery: B

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high

Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
 2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
 3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
 5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
 9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
 18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
 33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
 47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
 47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness. Consult the Water Features table for months of seasonal saturation.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness.

The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

725B—Skerry-Becket complex, 3 to 15 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep, gently sloping to strongly sloping, and moderately well drained and well drained. It is on backslopes and footslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 685 acres in size.

Map Unit Composition

Major Components
Skerry, very bouldery: 45 percent
Becket, very bouldery: 30 percent

Inclusions
Adirondack: 9 percent
Sunapee: 7 percent
Unnamed: 4 percent
Tunbridge: 3 percent
Monadnock: 2 percent

The somewhat poorly drained Adirondack, Sunapee, Monadnock, and Tunbridge soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Adirondack soils occupy small depressions and drainageways. Sunapee soils occupy similar positions as Skerry soils but lack a dense substratum. Monadnock and Tunbridge soils occupy similar positions as Becket soils, but

Monadnock soils lack a dense substratum, and Tunbridge soils are moderately deep to bedrock. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Skerry, very bouldery: no
Becket, very bouldery: no
Hydrologic group:
Skerry, very bouldery: B/D
Becket, very bouldery: B

Soil Properties and Qualities

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 4 inches: extremely acid to slightly acid (3.5 to 6.5)
4 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
9 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
26 to 38 inches: extremely acid to slightly acid (3.5 to 6.5)
38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
26 to 38 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate

Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
    3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
    5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
    9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
    18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
    33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
    47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
    0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
    2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
    47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional

wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

727B—Skerry-Adirondack complex, 0 to 8 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep, nearly level to gently sloping, and moderately well drained and somewhat poorly drained. It is on backslopes and footslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 1,150 acres in size.

Map Unit Composition

Major Components
Skerry, very bouldery: 45 percent
Adirondack, very bouldery: 30 percent

Inclusions
Becket: 5 percent
Monadnock: 5 percent
Sunapee: 5 percent
Tahawus: 5 percent
Ampersand: 3 percent
Unnamed: 2 percent

The well drained Becket and Monadnock, Sunapee, very poorly drained Tahawus, and Ampersand soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Becket and Monadnock occupy higher positions than Skerry soils, and Monadnock soils lack a dense substratum. Sunapee soils occupy similar positions as Skerry soils, but lack a dense substratum. Tahawus soils are on small depressions and drainageways, and are sandy. Ampersand soils occupy similar positions as Adirondack soils, but have a higher organic matter content. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Skerry, very bouldery: no
  Adirondack, very bouldery: no
Hydrologic group:
  Skerry, very bouldery: B/D
  Adirondack, very bouldery: C/D

Soil Properties and Qualities

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: not specified
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: extremely acid to slightly acid (3.5 to 6.5)
  4 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
  15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)

26 to 38 inches: extremely acid to slightly acid (3.5 to 6.5)
38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
26 to 38 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Adirondack, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
4 to 6 inches: moderate (0.6 to 2 inches/hour)
6 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 9 inches: moderate (0.6 to 2 inches/hour)
9 to 18 inches: moderate (0.6 to 2 inches/hour)
18 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 34 inches: slow (0.06 to 0.2 inches/hour)
34 to 43 inches: slow (0.06 to 0.2 inches/hour)
43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.

- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.

- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

831C—Tunbridge-Lyman complex, 3 to 15 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, moderately deep to shallow, gently sloping to strongly sloping, and well drained. It is on summits, shoulders, and backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 490 acres in size.

Map Unit Composition

Major Components
Tunbridge, very rocky, very bouldery: 45 percent
Lyman, very rocky, very bouldery: 30 percent

Inclusions
Becket: 5 percent
Rock outcrop: 5 percent
Monadnock: 4 percent
Skerry: 4 percent
Knob Lock: 3 percent
Rawsonville: 2 percent
Hogback: 1 percent
Unnamed: 1 percent

The Becket, Monadnock, Knob Lock, Rawsonville, Hogback, and moderately well drained Skerry soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Becket, Monadnock, Knob Lock, Rawsonville, and Hogback soils occupy similar positions, but Becket and Monadnock soils are very deep to bedrock, Knob Lock soils are organic, and Rawsonville and Hogback soils have a higher organic matter content. Skerry soils are very deep to bedrock and are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Tunbridge, very rocky, very bouldery: no
  Lyman, very rocky, very bouldery: no
Hydrologic group:
  Tunbridge, very rocky, very bouldery: B
  Lyman, very rocky, very bouldery: D

Soil Properties and Qualities

Tunbridge, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
- 7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
- 27 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 inches, bedrock

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
- 9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 inches, bedrock

Permeability:
- 0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)

0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 inches, bedrock

Use and Management

Woodland

- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep and shallow soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep and shallow soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The somewhat limited depth to bedrock in some areas reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.

- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

831D—Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, moderately deep to shallow, moderately steep and steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 1,455 acres in size.

Map Unit Composition

Major Components

Tunbridge, very rocky, very bouldery: 45 percent
Lyman, very rocky, very bouldery: 30 percent

Inclusions

Rock outcrop: 7 percent
Becket: 4 percent
Hogback: 3 percent
Knob Lock: 3 percent
Monadnock: 3 percent
Rawsonville: 3 percent
Skerry: 1 percent
Unnamed: 1 percent

The Becket, Monadnock, Knob Lock, Rawsonville, Hogback, and moderately well drained Skerry soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Becket, Monadnock, Knob Lock, Rawsonville, and Hogback soils occupy similar positions, but Becket and Monadnock soils are very deep to bedrock, Knob Lock soils are organic, and Rawsonville and Hogback soils have a higher organic matter content. Skerry soils are very deep to bedrock and are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Tunbridge, very rocky, very bouldery: no
  Lyman, very rocky, very bouldery: no
Hydrologic group:
  Tunbridge, very rocky, very bouldery: B
  Lyman, very rocky, very bouldery: D

Soil Properties and Qualities

Tunbridge, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
- 7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
- 27 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 inches, bedrock

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
- 9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 inches, bedrock

Permeability:
0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 inches, bedrock

Use and Management

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to moderately deep and shallow soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep and shallow soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock in some areas reduces the filtering capacity

of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

831F—Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, moderately deep to shallow, very steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 640 acres in size.

Map Unit Composition

Major Components
Tunbridge, very rocky, very bouldery: 45 percent
Lyman, very rocky, very bouldery: 30 percent

Inclusions
Rock outcrop: 9 percent
Becket: 4 percent
Knob Lock: 3 percent
Monadnock: 3 percent
Rawsonville: 3 percent
Hogback: 2 percent
Unnamed: 1 percent

The Becket, Monadnock, Knob Lock, Rawsonville, and Hogback soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Becket, Monadnock, Knob Lock, Rawsonville, and Hogback soils occupy similar positions, but Becket and Monadnock soils are very deep to bedrock, Knob Lock soils are organic, and Rawsonville and Hogback soils have a higher organic matter content. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland

Land capability classification: 7s
Hydric soil rating:
Tunbridge, very rocky, very bouldery: no
Lyman, very rocky, very bouldery: no
Hydrologic group:
Tunbridge, very rocky, very bouldery: B
Lyman, very rocky, very bouldery: D

Soil Properties and Qualities

Tunbridge, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
27 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 inches, bedrock

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)

0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
18 inches, bedrock

Permeability:
0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 inches, bedrock

Use and Management

Woodland

- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by moderately deep and shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep and shallow soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock in some areas reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

833C—Tunbridge-Adirondack-Lyman complex, 3 to 15 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep to shallow, gently to strongly sloping, and well and somewhat poorly drained. It is on footslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 400 acres in size.

Map Unit Composition

Major Components
Tunbridge, very rocky, very bouldery: 40 percent
Adirondack, very rocky, very bouldery: 30 percent
Lyman, very rocky, very bouldery: 20 percent

Inclusions
Rock Outcrop: 3 percent
Knob Lock: 2 percent
Ampersand: 1 percent
Hogback: 1 percent
Monadnock: 1 percent
Rawsonville: 1 percent
Tahawus: 1 percent

The Knob Lock, Ampersand, Hogback, Monadnock, Rawsonville, and very poorly drained Tahawus soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Knob Lock, Ampersand, Hogback, Monadnock, and Rawsonville soils occupy similar positions, but Knob Lock soils are

organic, Ampersand, Rawsonville and Hogback soils have a higher organic matter content, and Monadnock soils are loamy over sandy or gravelly. Tahawus soils occupy lower positions than Adirondack soils and are sandy. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Tunbridge, very rocky, very bouldery: no
  Adirondack, very rocky, very bouldery: no
  Lyman, very rocky, very bouldery: no
Hydrologic group:
  Tunbridge, very rocky, very bouldery: B
  Adirondack, very rocky, very bouldery: C/D
  Lyman, very rocky, very bouldery: D

Soil Properties and Qualities

Tunbridge, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
  7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
  18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
  27 inches, bedrock
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  27 inches, bedrock

Adirondack, very rocky, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: perched

Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
- 4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
- 6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
- 8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
- 9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
- 18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
- 34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
- 43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 4 to 6 inches: moderate (0.6 to 2 inches/hour)
- 6 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 9 inches: moderate (0.6 to 2 inches/hour)
- 9 to 18 inches: moderate (0.6 to 2 inches/hour)
- 18 to 26 inches: moderate (0.6 to 2 inches/hour)
- 26 to 34 inches: slow (0.06 to 0.2 inches/hour)
- 34 to 43 inches: slow (0.06 to 0.2 inches/hour)
- 43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
- 9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 inches, bedrock

Permeability:
- 0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)

1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 inches, bedrock

Use and Management

Woodland

- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep and shallow soils.
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during months of seasonal saturation in some areas or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep and shallow soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of

excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.
- The seasonal high water table in some areas severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- The seasonal high water table in some areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity in some areas of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.

851D—Lyman-Knob Lock complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy and organic, shallow to very shallow, moderately steep and steep, and well drained to excessively drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 350 acres in size.

Map Unit Composition

Major Components
Lyman, very rocky, very bouldery: 45 percent
Knob Lock, very rocky, very bouldery: 30 percent

Inclusions
Tunbridge: 10 percent
Rock outcrop: 5 percent
Hogback: 3 percent
Becket: 2 percent
Hermon: 2 percent
Monadnock: 2 percent
Unnamed: 1 percent

The Tunbridge, Hogback, Becket, Monadnock, and somewhat excessively drained Hermon soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Tunbridge, Becket, Monadnock, Hogback, and Hermon soils occupy similar positions, but Tunbridge soils are moderately deep to bedrock, Becket, Monadnock, and Hermon soils are very deep to bedrock, Hermon soils are sandy, and Hogback soils have a higher organic matter content. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Lyman, very rocky, very bouldery: no
  Knob Lock, very rocky, very bouldery: no
Hydrologic group:
  Lyman, very rocky, very bouldery: D
  Knob Lock, very rocky, very bouldery: D

Soil Properties and Qualities

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
  0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
  9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
  18 inches, bedrock

Permeability:
- 0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 inches, bedrock

Knob Lock, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Landform: glaciated hillside or mountainsides
Parent material: non-saturated organic material over loamy till derived from gneiss
Reaction (pH):
- 0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
- 7 to 9 inches: extremely acid or very strongly acid (3.5 to 5.0)
- 9 inches, bedrock

Permeability:
- 0 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
- 9 inches, bedrock

Use and Management

Woodland
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic

salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

851F—Lyman-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy and organic, shallow to very shallow, very steep, and well to excessively drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 15 to 1,470 acres in size.

Map Unit Composition

Major Components
Lyman, very rocky, very bouldery: 45 percent
Knob Lock, very rocky, very bouldery: 30 percent

Inclusions
Rock outcrop: 9 percent
Tunbridge: 6 percent
Hogback: 3 percent
Becket: 2 percent
Hermon: 2 percent
Monadnock: 2 percent
Unnamed: 1 percent

The Tunbridge, Hogback, Becket, Monadnock, and somewhat excessively drained Hermon soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Tunbridge, Becket, Monadnock, Hogback, and Hermon soils occupy similar positions, but Tunbridge soils are moderately deep to bedrock. Becket, Monadnock, and Hermon soils are very deep to bedrock; Hermon soils are sandy; and Hogback soils have a higher organic matter content. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
 Lyman, very rocky, very bouldery: no
 Knob Lock, very rocky, very bouldery: no
Hydrologic group:
 Lyman, very rocky, very bouldery: D
 Knob Lock, very rocky, very bouldery: D

Soil Properties and Qualities

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
 0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
 3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
 9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
 18 inches, bedrock
Permeability:
 0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
 1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 inches, bedrock

Knob Lock, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Landform: glaciated hillside or mountainsides
Parent material: non-saturated organic material over loamy till derived from gneiss
Reaction (pH):
0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
7 to 9 inches: extremely acid or very strongly acid (3.5 to 5.0)
9 inches, bedrock
Permeability:
0 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
9 inches, bedrock

Use and Management

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

881F—Rock outcrop-Knob Lock-Lyman complex, 35 to 60 percent slopes, very bouldery

Setting

This broadly defined map unit consists of areas of exposed bedrock and soils that are loamy and organic, shallow to very shallow, very steep, and well drained to excessively drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland (fig. 13). Areas range from 20 to 495 acres in size.

Map Unit Composition

Major Components
Rock outcrop, very bouldery: 40 percent
Knob Lock, very rocky, very bouldery: 30 percent
Lyman, very rocky, very bouldery: 20 percent

Inclusions
Tunbridge: 3 percent
Becket: 2 percent
Hogback: 2 percent
Hermon: 1 percent

Figure 13.—Oblique aerial view, in the town of Schroon, of the Rock Outcrop-Knob Lock-Lyman map unit occupying the very steep upper backslope of this hillside. Note the many landslide scars in the map unit. These areas are probably best managed for wildlife and watershed purposes.

Monadnock: 1 percent
Unnamed: 1 percent

The Tunbridge, Hogback, Becket, Monadnock, and somewhat excessively drained Hermon soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Tunbridge, Becket, Monadnock, Hogback, and Hermon soils occupy similar positions, but Tunbridge soils are moderately deep to bedrock; Becket, Monadnock, and Hermon soils are very deep to bedrock; Hermon soils are sandy; and Hogback soils have a higher organic matter content. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
- Rock outcrop, very bouldery: unranked
- Knob Lock, very rocky, very bouldery: no
- Lyman, very rocky, very bouldery: no

Hydrologic group:
- Rock outcrop, very bouldery: unranked
- Knob Lock, very rocky, very bouldery: D
- Lyman, very rocky, very bouldery: D

Rock outcrop, very bouldery
Characteristics not defined for this component.

Knob Lock, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches

Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Landform: glaciated hillside or mountainsides
Parent material: non-saturated organic material over loamy till derived from gneiss
Reaction (pH):
    0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
    3 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
    7 to 9 inches: extremely acid or very strongly acid (3.5 to 5.0)
    9 inches, bedrock
Permeability:
    0 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
    3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    7 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
    9 inches, bedrock

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
    0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
    0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
    1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
    3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
    9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
    13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
    18 inches, bedrock
Permeability:
    0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
    0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
    1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    18 inches, bedrock

Use and Management

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.

- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

930C—Mundalite-Rawsonville-Ampersand complex, 3 to 15 percent slopes, rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep to moderately deep, gently sloping to strongly sloping, and well drained or somewhat poorly drained. It is on backslopes and shoulders of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 30 to 490 acres in size.

Map Unit Composition

Major Components
Mundalite, rocky, very bouldery: 40 percent
Rawsonville, rocky, very bouldery: 30 percent
Ampersand, rocky, very bouldery: 20 percent

Inclusions
Becket: 2 percent
Hogback: 2 percent
Knob Lock: 2 percent
Tunbridge: 2 percent
Rock outcrop: 1 percent
Unnamed: 1 percent

The Becket, Hogback, Knob Lock, and Tunbridge soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Tunbridge, Hogback, and Knob Lock soils occupy similar positions, but Becket and Tunbridge soils have lower organic matter content; Hogback soils are shallow to bedrock; and Knob Lock soils are organic and shallow to very shallow to bedrock. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Mundalite, rocky, very bouldery: no
  Rawsonville, rocky, very bouldery: no
  Ampersand, rocky, very bouldery: no
Hydrologic group:
  Mundalite, rocky, very bouldery: C
  Rawsonville, rocky, very bouldery: B
  Ampersand, rocky, very bouldery: B/D

Soil Properties and Qualities

Mundalite, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 25 to 40 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium

Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
- 27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Rawsonville, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
- 5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
- 11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)
- 20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
- 25 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 25 inches, bedrock

Ampersand, rocky, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches

Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
    0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
    1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
    3 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
    4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
    5 to 13 inches: extremely acid to strongly acid (3.5 to 5.5)
    13 to 19 inches: extremely acid to strongly acid (3.5 to 5.5)
    19 to 24 inches: very strongly acid to moderately acid (4.5 to 6.0)
    24 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
    32 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
    0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
    1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    4 to 5 inches: moderate to rapid (0.6 to 20 inches/hour)
    5 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    13 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    19 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    24 to 32 inches: slow (0.06 to 0.2 inches/hour)
    32 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations due to moderately deep soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.

- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.
- The depth to bedrock and hardness of the bedrock in some areas greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The somewhat limited depth to bedrock in some areas reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.

- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.
- Depth to hard bedrock in some areas may limit site preparation such as shaping and grading and restrict installation of roads and streets.

931D—Mundalite-Rawsonville complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep to moderately deep, moderately steep and steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland (fig. 14). Areas range from 10 to 1,530 acres in size.

Map Unit Composition

Major Components
Mundalite, rocky, very bouldery: 45 percent
Rawsonville, rocky, very bouldery: 30 percent

Inclusions
Hogback: 6 percent
Knob Lock: 6 percent
Becket: 5 percent
Ampersand: 4 percent
Unnamed: 3 percent
Rock outcrop: 1 percent

The Hogback, Knob Lock, Becket, and somewhat poorly drained Ampersand soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Hogback, Knob Lock, and Becket soils occupy similar positions, but

Hogback soils are shallow to bedrock; Knob Lock soils are organic and shallow to very shallow to bedrock; and Becket soils have lower organic matter content. Ampersand soils occupy lower positions and are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
Mundalite, rocky, very bouldery: no
Rawsonville, rocky, very bouldery: no

Hydrologic group:
- Mundalite, rocky, very bouldery: C
- Rawsonville, rocky, very bouldery: B

Soil Properties and Qualities

Mundalite, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 25 to 40 inches
- Water table kind: perched

Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)

Figure 14.—Oblique aerial view of Boreas Ponds in the town of North Hudson. The facing ridge illustrates typical soil patterns of glaciated hillsides and ridges in the county at elevations above 2,000 feet. The very deep Mundalite and moderately deep Rawsonville soils occupy generally the lower one half of the slope, where nearly pure stands of northern hardwoods (light brown areas) predominant. The upper half of this ridge is first occupied by moderately deep Rawsonville and shallow Hogback soils up to 3,000 feet in elevation, where mixed stands of hardwoods and conifers predominant. Above 3,000 feet in elevation, steep to very steep landforms are occupied by moderately deep Santanoni and Wallface, and shallow to very shallow Skylight, Couchsachraga, and Ricker soils, where nearly pure stands of Spruce and Fir predominate.

3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Rawsonville, rocky, very bouldery

Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)
20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
25 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
25 inches, bedrock

Use and Management

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.
- The depth to bedrock and hardness of the bedrock in some areas greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.

- The somewhat limited depth to bedrock in some areas reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- Depth to hard bedrock in some areas may limit site preparation such as shaping and grading and restrict installation of roads and streets.

931F—Mundalite-Rawsonville complex, 35 to 60 percent slopes, rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep to moderately deep, very steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 1,440 acres in size.

Map Unit Composition

Major Components
Mundalite, rocky, very bouldery: 45 percent
Rawsonville, rocky, very bouldery: 30 percent

Inclusions
Hogback: 7 percent
Knob Lock: 7 percent
Becket: 6 percent
Ampersand: 2 percent
Unnamed: 2 percent
Rock outcrop: 1 percent

The Hogback, Knob Lock, Becket, and somewhat poorly drained Ampersand soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Hogback, Knob Lock, and Becket soils occupy similar positions, but Hogback soils are shallow to bedrock; Knob Lock soils are organic and shallow to very shallow to bedrock; and Becket soils have lower organic matter content. Ampersand soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
Mundalite, rocky, very bouldery: no
Rawsonville, rocky, very bouldery: no
Hydrologic group:
Mundalite, rocky, very bouldery: C
Rawsonville, rocky, very bouldery: B

Soil Properties and Qualities

Mundalite, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 25 to 40 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Rawsonville, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss

Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
- 5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
- 11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)
- 20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
- 25 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 25 inches, bedrock

Use and Management

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness. Consult the Water Features table for months of seasonal saturation.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.

932C—Mundalite-Ampersand complex, 0 to 15 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep, nearly level to strongly sloping, and well drained or somewhat poorly drained. It is on backslopes and shoulders of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 25 to 1,705 acres in size.

Map Unit Composition

Major Components
Mundalite, very bouldery: 45 percent
Ampersand, very bouldery: 30 percent

Inclusions
Wilmington: 9 percent
Rawsonville: 6 percent
Becket: 5 percent
Adirondack: 2 percent
Monadnock: 2 percent
Unnamed: 1 percent

The poorly drained Wilmington, Rawsonville, Becket, Adirondack, and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Rawsonville, Becket, and Monadnock soils occupy similar positions as Mundalite soils, but Rawsonville soils are moderately deep to bedrock; Becket and Monadnock soils have lower organic matter content; and Monadnock soils lack a dense substratum. Adirondack soils occupy similar positions as Ampersand soils, but have lower organic matter content. Wilmington soils are on depressions and drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Mundalite, very bouldery: no
  Ampersand, very bouldery: no
Hydrologic group:
  Mundalite, very bouldery: C
  Ampersand, very bouldery: B/D

Soil Properties and Qualities

Mundalite, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 25 to 40 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
  14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
  27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
  37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Ampersand, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 13 inches: extremely acid to strongly acid (3.5 to 5.5)
13 to 19 inches: extremely acid to strongly acid (3.5 to 5.5)
19 to 24 inches: very strongly acid to moderately acid (4.5 to 6.0)
24 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate to rapid (0.6 to 20 inches/hour)
5 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
24 to 32 inches: slow (0.06 to 0.2 inches/hour)
32 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse

grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.

- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

932D—Mundalite-Ampersand complex, 15 to 35 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep, moderately steep and steep, and well drained or somewhat poorly drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 30 to 1,110 acres in size.

Map Unit Composition

Major Components

Mundalite, very bouldery: 45 percent
Ampersand, very bouldery: 30 percent

Inclusions

Rawsonville: 9 percent
Wilmington: 6 percent
Becket: 5 percent
Adirondack: 2 percent
Monadnock: 2 percent
Unnamed: 1 percent

The Rawsonville, poorly drained Wilmington, Becket, Adirondack, and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Rawsonville, Becket, and Monadnock soils occupy similar positions as Mundalite soils, but Rawsonville soils are moderately deep to bedrock; Becket and Monadnock soils have lower organic matter content; and Monadnock soils lack a dense substratum. Adirondack soils occupy similar positions as Ampersand soils but have lower organic matter content. Wilmington soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Mundalite, very bouldery: no
  Ampersand, very bouldery: no
Hydrologic group:
  Mundalite, very bouldery: C
  Ampersand, very bouldery: B/D

Soil Properties and Qualities

Mundalite, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 25 to 40 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Ampersand, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 13 inches: extremely acid to strongly acid (3.5 to 5.5)
13 to 19 inches: extremely acid to strongly acid (3.5 to 5.5)
19 to 24 inches: very strongly acid to moderately acid (4.5 to 6.0)

24 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate to rapid (0.6 to 20 inches/hour)
5 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
24 to 32 inches: slow (0.06 to 0.2 inches/hour)
32 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

934C—Ampersand-Wilmington complex, 0 to 15 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep, nearly level to strongly sloping, and somewhat poorly drained or poorly drained. It is on toeslopes and footslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 15 to 960 acres in size.

Map Unit Composition

Major Components
Ampersand, very bouldery: 45 percent
Wilmington, very bouldery: 30 percent

Inclusions
Burnt Vly: 9 percent
Adirondack: 6 percent
Tahawus: 4 percent
Rawsonville: 3 percent
Mundalite: 2 percent
Unnamed: 1 percent

The very poorly drained Burnt Vly and Tahawus, Adirondack, and well drained Rawsonville and Mundalite soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Burnt Vly and Tahawus soils occupy similar positions as Wilmington soils, but Burnt Vly soils are organic and Tahawus soils are sandy. Adirondack soils occupy similar positions as Ampersand soils but have less organic matter. Rawsonville and Mundalite soils occupy higher positions, and Rawsonville soils are moderately deep to bedrock. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Ampersand, very bouldery: no
Wilmington, very bouldery: yes
Hydrologic group:
Ampersand, very bouldery: B/D
Wilmington, very bouldery: D

Soil Properties and Qualities

Ampersand, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 13 inches: extremely acid to strongly acid (3.5 to 5.5)
13 to 19 inches: extremely acid to strongly acid (3.5 to 5.5)
19 to 24 inches: very strongly acid to moderately acid (4.5 to 6.0)
24 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate to rapid (0.6 to 20 inches/hour)
5 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
24 to 32 inches: slow (0.06 to 0.2 inches/hour)
32 to 72 inches: slow (0.06 to 0.2 inches/hour)

Wilmington, very bouldery
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 12 to 28 inches to densic material
Depth to seasonal high water table: 0 to 12 inches
Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 5 inches: ultra acid or extremely acid (1.8 to 4.4)
5 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
7 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
9 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
19 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
0 to 3 inches: moderately slow to rapid (0.2 to 20 inches/hour)
3 to 5 inches: moderately slow to rapid (0.2 to 20 inches/hour)
5 to 7 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
7 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Areas of poorly drained and very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.

- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

941C—Rawsonville-Hogback complex, 3 to 15 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, moderately deep to shallow, gently sloping to strongly sloping, and well drained. It is on summits, shoulders, and backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 15 to 240 acres in size.

Map Unit Composition

Major Components
Rawsonville, very rocky, very bouldery: 45 percent
Hogback, very rocky, very bouldery: 30 percent

Inclusions
Ampersand: 5 percent
Knob Lock: 5 percent
Mundalite: 5 percent
Rock outcrop: 4 percent
Lyman: 2 percent
Tunbridge: 2 percent
Unnamed: 2 percent

The somewhat poorly drained Ampersand, Knob Lock, Mundalite, Lyman, and Tunbridge soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Knob Lock, Mundalite, Lyman, and Tunbridge soils occupy similar positions, but Knob Lock soils are organic; Mundalite soils are very deep; and Lyman and Tunbridge soils have less organic matter. Ampersand soils are on small depressions and drainageways, and are very deep to bedrock. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Rawsonville, very rocky, very bouldery: no
Hogback, very rocky, very bouldery: no
Hydrologic group:
Rawsonville, very rocky, very bouldery: B
Hogback, very rocky, very bouldery: D

Soil Properties and Qualities

Rawsonville, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss

Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)
20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
25 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
25 inches, bedrock

Hogback, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
6 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
14 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 inches, bedrock

Use and Management

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep and shallow soils.
- Employing larger, more powerful machinery during construction and locating haul

roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep and shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

941D—Rawsonville-Hogback complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, moderately deep to shallow, moderately steep and steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 10 to 940 acres in size.

Map Unit Composition

Major Components
Rawsonville, very rocky, very bouldery: 45 percent
Hogback, very rocky, very bouldery: 30 percent

Inclusions
Knob Lock: 5 percent
Mundalite: 5 percent
Rock outcrop: 5 percent
Ampersand: 4 percent
Lyman: 2 percent
Tunbridge: 2 percent
Unnamed: 2 percent

The Knob Lock, Mundalite, somewhat poorly drained Ampersand, Lyman, and Tunbridge soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Knob Lock, Mundalite, Lyman, and Tunbridge soils occupy similar positions, but Knob Lock soils are organic; Mundalite soils are very deep, and Lyman and Tunbridge soils have less organic matter. Ampersand soils are on drainageways, and are very deep to bedrock. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Rawsonville, very rocky, very bouldery: no
  Hogback, very rocky, very bouldery: no
Hydrologic group:
  Rawsonville, very rocky, very bouldery: B
  Hogback, very rocky, very bouldery: D

Soil Properties and Qualities

Rawsonville, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides

Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
- 5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
- 11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)
- 20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
- 25 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 25 inches, bedrock

Hogback, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
- 6 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
- 14 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 inches, bedrock

Use and Management

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and re-seeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.

- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to moderately deep and shallow soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations due to steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep and shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

941F—Rawsonville-Hogback complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, moderately deep to shallow, very steep, and well drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 1,285 acres in size.

Map Unit Composition

Major Components
Rawsonville, very rocky, very bouldery: 45 percent
Hogback, very rocky, very bouldery: 30 percent

Inclusions
Rock outcrop: 8 percent
Knob Lock: 5 percent
Mundalite: 5 percent
Tunbridge: 3 percent
Lyman: 2 percent
Ampersand: 1 percent
Unnamed: 1 percent

The Knob Lock, Mundalite, Lyman, Tunbridge, and somewhat poorly drained Ampersand soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Knob Lock, Mundalite, Lyman, and Tunbridge soils occupy similar positions, but Knob Lock soils are organic; Mundalite soils are very deep, and Lyman and Tunbridge soils have less organic matter. Ampersand soils are on drainageways, and are very deep to bedrock. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
 Rawsonville, very rocky, very bouldery: no
 Hogback, very rocky, very bouldery: no
Hydrologic group:
 Rawsonville, very rocky, very bouldery: B
 Hogback, very rocky, very bouldery: D

Soil Properties and Qualities

Rawsonville, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches

Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
- 5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
- 11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)
- 20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
- 25 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 25 inches, bedrock

Hogback, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
- 6 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
- 14 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 6 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 14 inches, bedrock

Use and Management

Woodland

- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by moderately deep and shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep and shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

944D—Hogback-Knob Lock complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy and organic, shallow to very shallow, moderately steep and steep, and well drained to excessively drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 420 acres in size.

Map Unit Composition

Major Components
Hogback, very rocky, very bouldery: 45 percent
Knob Lock, very rocky, very bouldery: 30 percent

Inclusions
Rawsonville: 10 percent
Mundalite: 5 percent
Rock outcrop: 5 percent
Lyman: 2 percent
Tunbridge: 2 percent
Unnamed: 1 percent

The Rawsonville, Mundalite, Lyman, and Tunbridge soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Rawsonville, Mundalite, Lyman, and Tunbridge soils occupy similar positions, but Rawsonville and Tunbridge soils are moderately deep to bedrock and Tunbridge soils have less organic matter; Mundalite soils are very deep to bedrock, and Lyman soils have less organic matter. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Hogback, very rocky, very bouldery: no
  Knob Lock, very rocky, very bouldery: no
Hydrologic group:
  Hogback, very rocky, very bouldery: D
  Knob Lock, very rocky, very bouldery: D

Soil Properties and Qualities

Hogback, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches

Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
- 6 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
- 14 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 6 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 14 inches, bedrock

Knob Lock, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: non-saturated organic material over loamy till derived from gneiss
Reaction (pH):
- 0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
- 7 to 9 inches: extremely acid or very strongly acid (3.5 to 5.0)
- 9 inches, bedrock

Permeability:
- 0 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
- 9 inches, bedrock

Use and Management

Woodland
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.

- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

944F—Hogback-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy and organic, shallow to very shallow, very steep, and well drained to excessively drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 2,620 acres in size.

Map Unit Composition

Major Components
Hogback, very rocky, very bouldery: 45 percent
Knob Lock, very rocky, very bouldery: 30 percent

Inclusions
Rock outcrop: 9 percent
Rawsonville: 6 percent
Lyman: 4 percent
Tunbridge: 4 percent
Mundalite: 1 percent
Unnamed: 1 percent

The Rawsonville, Lyman, Tunbridge, and Mundalite soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Rawsonville, Mundalite, Lyman, and Tunbridge soils occupy similar positions, but Rawsonville and Tunbridge soils are moderately deep to bedrock and Tunbridge soils have less organic matter; Mundalite soils are very deep to bedrock; and Lyman soils have less organic matter. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Hogback, very rocky, very bouldery: no
  Knob Lock, very rocky, very bouldery: no
Hydrologic group:
  Hogback, very rocky, very bouldery: D
  Knob Lock, very rocky, very bouldery: D

Soil Properties and Qualities

Hogback, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)

1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
6 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
14 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 inches, bedrock

Knob Lock, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: non-saturated organic material over loamy till derived from gneiss
Reaction (pH):
0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
7 to 9 inches: extremely acid or very strongly acid (3.5 to 5.0)
9 inches, bedrock

Permeability:
0 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
9 inches, bedrock

Use and Management

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding

skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

948F—Rock outcrop-Knob Lock-Hogback complex, 35 to 60 percent slopes, very bouldery

Setting

This broadly defined map unit consists of areas of exposed bedrock and soils that are loamy and organic, shallow to very shallow, very steep, and well drained to excessively drained. It is on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 20 to 200 acres in size.

Map Unit Composition

Major Components
Rock outcrop, very bouldery: 40 percent
Knob Lock, very bouldery: 30 percent
Hogback, very bouldery: 20 percent

Inclusions
Rawsonville: 5 percent
Lyman: 3 percent
Unnamed: 2 percent

The Rawsonville and Lyman soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Rawsonville and Lyman soils occupy similar positions, but Rawsonville soils are moderately deep to bedrock, and Lyman soils have less organic matter. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
- Rock outcrop, very bouldery: unranked
- Knob Lock, very bouldery: no
- Hogback, very bouldery: no

Hydrologic group:
- Rock outcrop, very bouldery: unranked
- Knob Lock, very bouldery: D
- Hogback, very bouldery: D

Rock outcrop, very bouldery
Characteristics not defined for this component.

Knob Lock, very bouldery
Drainage class: well drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: non-saturated organic material over loamy till derived from gneiss
Reaction (pH):
- 0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
- 7 to 9 inches: extremely acid or very strongly acid (3.5 to 5.0)
- 9 inches, bedrock

Permeability:
- 0 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
- 9 inches, bedrock

Hogback, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches

Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
6 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
14 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 inches, bedrock

Use and Management

Woodland

- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

971D—Esther-Wallface complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep to moderately deep, moderately steep and steep, and moderately well drained to well drained. It is on backslopes of glaciated mountain slopes in the Adirondack High Peaks Region. Areas range from 25 to 620 acres in size.

Map Unit Composition

Major Components
Esther, rocky, very bouldery: 45 percent
Wallface, rocky, very bouldery: 30 percent

Inclusions
Andic Cryaquods: 9 percent
Unnamed: 6 percent
Santanoni: 4 percent
Skylight: 3 percent
Ricker: 2 percent
Rock outcrop: 1 percent

The somewhat poorly drained Andic Cryaquods, somewhat excessively drained and excessively drained Santanoni and Skylight, and Ricker soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Santanoni, Skylight, and Ricker soils occupy similar positions, but Santanoni soils are sandy and gravelly; Skylight soils are shallow to bedrock and are sandy; and Ricker soils are organic and shallow to very shallow to bedrock. Andic Cryaquods soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Esther, rocky, very bouldery: no
  Wallface, rocky, very bouldery: no
Hydrologic group:
  Esther, rocky, very bouldery: B
  Wallface, rocky, very bouldery: B

Soil Properties and Qualities

Esther, rocky, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 39 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 8 inches: ultra acid or extremely acid (1.8 to 4.4)
  8 to 10 inches: ultra acid to very strongly acid (1.8 to 5.0)
  10 to 22 inches: extremely acid to strongly acid (3.5 to 5.5)
  22 to 28 inches: extremely acid to strongly acid (3.5 to 5.5)
  28 to 33 inches: extremely acid to strongly acid (3.5 to 5.5)
  33 to 72 inches: extremely acid to strongly acid (3.5 to 5.5)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 4 inches: moderately rapid or rapid (2 to 20 inches/hour)
  4 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  8 to 10 inches: moderate to rapid (0.6 to 20 inches/hour)
  10 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  22 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  28 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  33 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Wallface, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches

Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: loamy till derived from gneiss
Reaction (pH):
    0 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
    4 to 9 inches: ultra acid or extremely acid (1.8 to 4.4)
    9 to 10 inches: ultra acid to very strongly acid (1.8 to 5.0)
    10 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
    18 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
    25 to 35 inches: extremely acid to strongly acid (3.5 to 5.5)
    35 to 38 inches: extremely acid to strongly acid (3.5 to 5.5)
    38 inches, bedrock
Permeability:
    0 to 4 inches: moderately rapid or rapid (2 to 20 inches/hour)
    4 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    9 to 10 inches: moderate to rapid (0.6 to 20 inches/hour)
    10 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    18 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    25 to 35 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    35 to 38 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    38 inches, bedrock

Use and Management

The areas of the county above 3,000 feet in elevation, within the cryic soil temperature zone, lie almost entirely within the New York State Forest Preserve. They cover approximately 76,750 acres or about 7 percent of the county. Because these areas have been designated “forever wild” by law, discussions of land use interpretations of the soils for agriculture, forestry, and residential development are not necessary, as these parts of the county are not subject to development for these uses. Interpretive data for these uses however, can still be found in the tables. The primary uses for interpretive data for these high elevation soils probably will be broad-based engineering interpretations for watershed planning, recreational uses, and environmental management of these unique ecological areas.

The majority of these soils, about 75 percent, are shallow or very shallow to bedrock, 15 percent are moderately deep to bedrock, and only 10 percent are very deep. Ricker, Couchsachraga, and Skylight soils are very shallow (1 to 10 inches over bedrock) or shallow (10 to 20 inches over bedrock). Wallface and Santanoni soils are moderately deep (20 to 40 inches over bedrock). Esther and Andic Cryaquods soils are very deep (greater than 60 inches deep to bedrock).

An example of an engineering interpretation for these soils would entail estimating the water storage capacity of the watershed for planning purposes downstream, such as sizing of road culverts and construction or rehab of bridges. Shallow soils would have the least storage capability within the watershed. However, water holding capacity of these soils is greatly increased, compared to other soils in the county of the same depth class, because of their very high content of organic matter and amorphous materials (complexes of iron and aluminum oxides).

Interpretations for recreational uses in the High Peaks Region center on impacts to soil resources from hiking and camping. Because of the very high organic matter

and amorphous material content in the subsoil, these high elevation soils have low bearing strength, especially when wet. Special care should be taken when locating and constructing trails and campsites to avoid compaction and subsequent erosion. Trail design needs to address the unstable nature of these soils, especially those that are shallow to bedrock. Switchbacks should be employed in trail design and grades should not exceed 10 percent. Long grades should employ diversions to slow water velocity during peak runoff events and reduce trail erosion. Cribbing structures should be utilized to stabilize shallow soils.

These high elevation soils are truly unique ecologically. The surfaces of some of these soils have an organic layer that can exceed 20 inches thick on an otherwise well-drained landform. These organic deposits build up because of cold temperatures and acidic soil conditions which lead to low microbial activity and low oxidation rates of the organic matter. The subsoils are also very high in organic matter and in many cases are at the break between mineral and organic soil material. Subsoils are also highly acidic, some with pH's less than 3.5 (ultra acid), and have very high contents of oxides of iron and aluminum (amorphous materials). Amorphous materials are mineral assemblages rich in iron and aluminum with very high water holding capacity and reactivity similar to clays, but lack the structure and plasticity. These soils, although not very extensive, may be a very important medium for carbon sequestration.

975C—Andic Cryaquods-Esther complex, 3 to 15 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep, gently to strongly sloping, and somewhat poorly drained to moderately well drained. It is on footslopes and backslopes of glaciated mountain slopes in the Adirondack High Peaks Region (fig. 15). Areas range from 20 to 110 acres in size.

Map Unit Composition

Major Components
Andic Cryaquods, very bouldery: 45 percent
Esther, very bouldery: 35 percent

Inclusions
Unnamed: 10 percent
Wallface: 5 percent
Santanoni: 3 percent
Skylight: 2 percent

The Wallface and the somewhat excessively drained and excessively drained Santanoni and Skylight soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Wallface, Santanoni, and Skylight soils occupy similar positions as Esther soils, but Wallface and Santanoni soils are moderately deep to bedrock, Santanoni soils are sandy and gravelly, and Skylight soils are shallow to bedrock and are sandy. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Andic Cryaquods, very bouldery: no
Esther, very bouldery: no

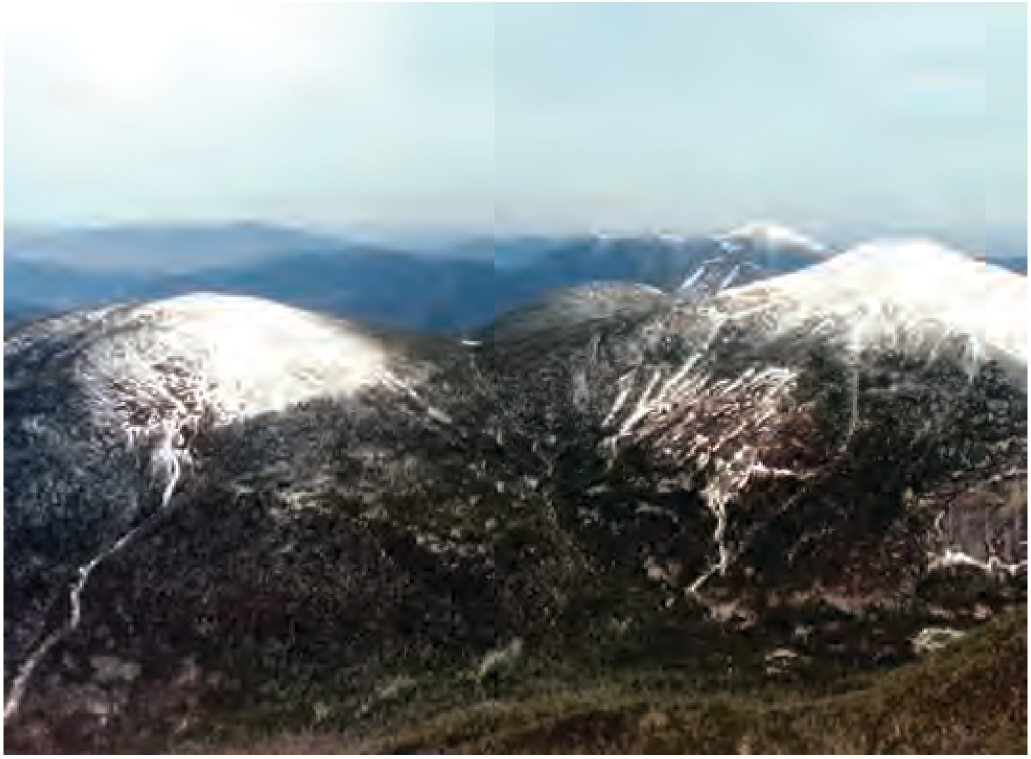


Figure 15.—Oblique aerial view of Mount Marcy (right) and Mount Skylight (left), with Panther Gorge in the lower foreground, in the town of Keene looking northwest. This view illustrates typical soil patterns of glaciated mountainsides in the High Peaks Region at elevations above 3,000 feet. One of the few occurrences of very deep soil areas above 3,000 feet in elevation is found in the bottom of Panther Gorge, which is occupied by the Andic Cryaquods-Esther complexes. As one moves up the slope, soil depth thins rapidly. The moderately deep to shallow Wallface-Skylight and Santanoni-Skylight complexes generally occupy the relatively deeper hollow (concave) areas. The shallow to very shallow Ricker-Couchsachraga-Skylight complexes occupy the forested nose (convex) slope areas. The open alpine areas and the very steep exposed landslide areas are occupied by the Rock Outcrop-Ricker-Skylight complex.

Hydrologic group:
- Andic Cryaquods, very bouldery: B/D
- Esther, very bouldery: B

Soil Properties and Qualities

Andic Cryaquods, very bouldery

Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 39 inches to densic material
Depth to seasonal high water table: 12 to 24 inches
- Water table kind: perched

Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: loamy lodgment till derived from gneiss

Reaction (pH):
- 0 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
- 7 to 11 inches: ultra acid or extremely acid (1.8 to 4.4)
- 11 to 13 inches: extremely acid to strongly acid (3.5 to 5.5)
- 13 to 24 inches: extremely acid to strongly acid (3.5 to 5.5)
- 24 to 36 inches: extremely acid to strongly acid (3.5 to 5.5)
- 36 to 72 inches: extremely acid to strongly acid (3.5 to 5.5)

Permeability:
- 0 to 7 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 24 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 36 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Esther, very bouldery

Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 39 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
- Water table kind: perched

Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
- 4 to 8 inches: ultra acid or extremely acid (1.8 to 4.4)
- 8 to 10 inches: ultra acid to very strongly acid (1.8 to 5.0)
- 10 to 22 inches: extremely acid to strongly acid (3.5 to 5.5)
- 22 to 28 inches: extremely acid to strongly acid (3.5 to 5.5)
- 28 to 33 inches: extremely acid to strongly acid (3.5 to 5.5)
- 33 to 72 inches: extremely acid to strongly acid (3.5 to 5.5)

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 4 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 4 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 8 to 10 inches: moderate to rapid (0.6 to 20 inches/hour)
- 10 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 22 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 28 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 33 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

The areas of the county above 3,000 feet in elevation, within the cryic soil temperature zone, lie almost entirely within the New York State Forest Preserve. They cover approximately 76,750 acres or about 7 percent of the county. Because these areas have been designated “forever wild” by law, discussions of land use interpretations of the soils for agriculture, forestry, and residential development are not necessary, as these parts of the county are not subject to development for these

uses. Interpretive data for these uses however, can still be found in the tables. The primary uses for interpretive data for these high elevation soils probably will be broad-based engineering interpretations for watershed planning, recreational uses, and environmental management of these unique ecological areas.

The majority of these soils, about 75 percent, are shallow or very shallow to bedrock, 15 percent are moderately deep to bedrock, and only 10 percent are very deep. Ricker, Couchsachraga, and Skylight soils are very shallow (1 to 10 inches over bedrock) or shallow (10 to 20 inches over bedrock). Wallface and Santanoni soils are moderately deep (20 to 40 inches over bedrock). Esther and Andic Cryaquods soils are very deep (greater than 60 inches deep to bedrock).

An example of an engineering interpretation for these soils would entail estimating the water storage capacity of the watershed for planning purposes downstream, such as sizing of road culverts and construction or rehab of bridges. Shallow soils would have the least storage capability within the watershed. However, water holding capacity of these soils is greatly increased, compared to other soils in the county of the same depth class, because of their very high content of organic matter and amorphous materials (complexes of iron and aluminum oxides).

Interpretations for recreational uses in the High Peaks Region center on impacts to soil resources from hiking and camping. Because of the very high organic matter and amorphous material content in the subsoil, these high elevation soils have low bearing strength, especially when wet. Special care should be taken when locating and constructing trails and campsites to avoid compaction and subsequent erosion. Trail design needs to address the unstable nature of these soils, especially those that are shallow to bedrock. Switchbacks should be employed in trail design and grades should not exceed 10 percent. Long grades should employ diversions to slow water velocity during peak runoff events and reduce trail erosion. Cribbing structures should be utilized to stabilize shallow soils.

These high elevation soils are truly unique ecologically. The surfaces of some of these soils have an organic layer that can exceed 20 inches thick on an otherwise well-drained landform. These organic deposits build up because of cold temperatures and acidic soil conditions which lead to low microbial activity and low oxidation rates of the organic matter. The subsoils are also very high in organic matter and in many cases are at the break between mineral and organic soil material. Subsoils are also highly acidic, some with pH’s less than 3.5 (ultra acid), and have very high contents of oxides of iron and aluminum (amorphous materials). Amorphous materials are mineral assemblages rich in iron and aluminum with very high water holding capacity and reactivity similar to clays, but lack the structure and plasticity. These soils, although not very extensive, may be a very important medium for carbon sequestration.

975D—Esther-Andic Cryaquods complex, 15 to 35 percent slopes, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy, very deep, moderately steep and steep, and moderately well drained to somewhat poorly drained. It is on backslopes of glaciated mountain slopes in the Adirondack High Peaks Region. Areas range from 70 to 230 acres in size.

Map Unit Composition

Major Components
Esther, very bouldery: 45 percent
Andic Cryaquods, very bouldery: 35 percent

Inclusions
Unnamed: 10 percent
Wallface: 5 percent
Santanoni: 3 percent
Skylight: 2 percent

The Wallface and the somewhat excessively drained and excessively drained Santanoni and Skylight soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Wallface, Santanoni, and Skylight soils occupy similar positions as Esther soils, but Wallface and Santanoni soils are moderately deep to bedrock; Santanoni soils are sandy and gravelly; and Skylight soils are shallow to bedrock and are sandy. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Esther, very bouldery: no
  Andic Cryaquods, very bouldery: no
Hydrologic group:
  Esther, very bouldery: B
  Andic Cryaquods, very bouldery: B/D

Soil Properties and Qualities

Esther, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 39 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 8 inches: ultra acid or extremely acid (1.8 to 4.4)
  8 to 10 inches: ultra acid to very strongly acid (1.8 to 5.0)
  10 to 22 inches: extremely acid to strongly acid (3.5 to 5.5)
  22 to 28 inches: extremely acid to strongly acid (3.5 to 5.5)
  28 to 33 inches: extremely acid to strongly acid (3.5 to 5.5)
  33 to 72 inches: extremely acid to strongly acid (3.5 to 5.5)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 4 inches: moderately rapid or rapid (2 to 20 inches/hour)
  4 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  8 to 10 inches: moderate to rapid (0.6 to 20 inches/hour)
  10 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  22 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

28 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
33 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Andic Cryaquods, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 39 inches to densic material
Depth to seasonal high water table: 12 to 24 inches
Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
7 to 11 inches: ultra acid or extremely acid (1.8 to 4.4)
11 to 13 inches: extremely acid to strongly acid (3.5 to 5.5)
13 to 24 inches: extremely acid to strongly acid (3.5 to 5.5)
24 to 36 inches: extremely acid to strongly acid (3.5 to 5.5)
36 to 72 inches: extremely acid to strongly acid (3.5 to 5.5)
Permeability:
0 to 7 inches: moderately rapid or rapid (2 to 20 inches/hour)
7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
24 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
36 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

The areas of the county above 3,000 feet in elevation, within the cryic soil temperature zone, lie almost entirely within the New York State Forest Preserve. They cover approximately 76,750 acres or about 7 percent of the county. Because these areas have been designated “forever wild” by law, discussions of land use interpretations of the soils for agriculture, forestry, and residential development are not necessary, as these parts of the county are not subject to development for these uses. Interpretive data for these uses however, can still be found in the tables. The primary uses for interpretive data for these high elevation soils probably will be broad-based engineering interpretations for watershed planning, recreational uses, and environmental management of these unique ecological areas.

The majority of these soils, about 75 percent, are shallow or very shallow to bedrock, 15 percent are moderately deep to bedrock, and only 10 percent are very deep. Ricker, Couchsachraga, and Skylight soils are very shallow (1 to 10 inches over bedrock) or shallow (10 to 20 inches over bedrock). Wallface and Santanoni soils are moderately deep (20 to 40 inches over bedrock). Esther and Andic Cryaquods soils are very deep (greater than 60 inches deep to bedrock).

An example of an engineering interpretation for these soils would entail estimating the water storage capacity of the watershed for planning purposes downstream, such as sizing of road culverts and construction or rehab of bridges. Shallow soils would have the least storage capability within the watershed. However, water holding capacity of these soils is greatly increased, compared to other soils in the county of the same depth class, because of their very high content of organic matter and amorphous materials (complexes of iron and aluminum oxides).

Interpretations for recreational uses in the High Peaks Region center on impacts to soil resources from hiking and camping. Because of the very high organic matter and amorphous material content in the subsoil, these high elevation soils have low bearing strength, especially when wet. Special care should be taken when locating and constructing trails and campsites to avoid compaction and subsequent erosion. Trail design needs to address the unstable nature of these soils, especially those that are shallow to bedrock. Switchbacks should be employed in trail design and grades should not exceed 10 percent. Long grades should employ diversions to slow water velocity during peak runoff events and reduce trail erosion. Cribbing structures should be utilized to stabilize shallow soils.

These high elevation soils are truly unique ecologically. The surfaces of some of these soils have an organic layer that can exceed 20 inches thick on an otherwise well-drained landform. These organic deposits build up because of cold temperatures and acidic soil conditions which lead to low microbial activity and low oxidation rates of the organic matter. The subsoils are also very high in organic matter and in many cases are at the break between mineral and organic soil material. Subsoils are also highly acidic, some with pH's less than 3.5 (ultra acid), and have very high contents of oxides of iron and aluminum (amorphous materials). Amorphous materials are mineral assemblages rich in iron and aluminum with very high water holding capacity and reactivity similar to clays, but lack the structure and plasticity. These soils, although not very extensive, may be a very important medium for carbon sequestration.

992D—Wallface-Skylight complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are loamy and sandy, moderately deep to shallow, moderately steep and steep, and well drained to somewhat excessively drained. It is on summits, shoulders, and backslopes of glaciated mountain slopes in the Adirondack High Peaks Region. Areas range from 15 to 620 acres in size.

Map Unit Composition

Major Components
Wallface, very rocky, very bouldery: 45 percent
Skylight, very rocky, very bouldery: 30 percent

Inclusions
Ricker: 10 percent
Couchsachraga: 5 percent
Esther: 4 percent
Rock outcrop: 3 percent
Santanoni: 2 percent
Unnamed: 1 percent

The Ricker, Couchsachraga, Esther, and Santanoni soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Ricker, Couchsachraga, Esther, and Santanoni soils occupy similar positions, but Ricker soils are organic; Couchsachraga soils are very shallow; Esther soils are very deep; and Santanoni soils are sandy and gravelly. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland

Land capability classification: 7s
Hydric soil rating:
- Wallface, very rocky, very bouldery: no
- Skylight, very rocky, very bouldery: no

Hydrologic group:
- Wallface, very rocky, very bouldery: B
- Skylight, very rocky, very bouldery: D

Soil Properties and Qualities

Wallface, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
- 4 to 9 inches: ultra acid or extremely acid (1.8 to 4.4)
- 9 to 10 inches: ultra acid to very strongly acid (1.8 to 5.0)
- 10 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
- 18 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
- 25 to 35 inches: extremely acid to strongly acid (3.5 to 5.5)
- 35 to 38 inches: extremely acid to strongly acid (3.5 to 5.5)
- 38 inches, bedrock

Permeability:
- 0 to 4 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 4 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 10 inches: moderate to rapid (0.6 to 20 inches/hour)
- 10 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 25 to 35 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 35 to 38 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 38 inches, bedrock

Skylight, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: sandy colluvium derived from gneiss and/or sandy residuum weathered from gneiss and/or sandy till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)

2 to 5 inches: ultra acid or extremely acid (1.8 to 4.4)
5 to 9 inches: ultra acid to very strongly acid (1.8 to 5.0)
9 to 15 inches: extremely acid to strongly acid (3.5 to 5.5)
15 inches, bedrock

Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 9 inches: rapid or very rapid (6 to 100 inches/hour)
9 to 15 inches: rapid or very rapid (6 to 100 inches/hour)
15 inches, bedrock

Use and Management

The areas of the county above 3,000 feet in elevation, within the cryic soil temperature zone, lie almost entirely within the New York State Forest Preserve. They cover approximately 76,750 acres or about 7 percent of the county. Because these areas have been designated “forever wild” by law, discussions of land use interpretations of the soils for agriculture, forestry, and residential development are not necessary, as these parts of the county are not subject to development for these uses. Interpretive data for these uses however, can still be found in the tables. The primary uses for interpretive data for these high elevation soils probably will be broad-based engineering interpretations for watershed planning, recreational uses, and environmental management of these unique ecological areas.

The majority of these soils, about 75 percent, are shallow or very shallow to bedrock; 15 percent are moderately deep to bedrock; and only 10 percent are very deep. Ricker, Couchsachraga, and Skylight soils are very shallow (1 to 10 inches over bedrock) or shallow (10 to 20 inches over bedrock). Wallface and Santanoni soils are moderately deep (20 to 40 inches over bedrock). Esther and Andic Cryaquods soils are very deep (greater than 60 inches deep to bedrock).

An example of an engineering interpretation for these soils would entail estimating the water storage capacity of the watershed for planning purposes downstream, such as sizing of road culverts and construction or rehab of bridges. Shallow soils would have the least storage capability within the watershed. However, water holding capacity of these soils is greatly increased, compared to other soils in the county of the same depth class, because of their very high content of organic matter and amorphous materials (complexes of iron and aluminum oxides).

Interpretations for recreational uses in the High Peaks Region center on impacts to soil resources from hiking and camping. Because of the very high organic matter and amorphous material content in the subsoil, these high elevation soils have low bearing strength, especially when wet. Special care should be taken when locating and constructing trails and campsites to avoid compaction and subsequent erosion. Trail design needs to address the unstable nature of these soils, especially those that are shallow to bedrock. Switchbacks should be employed in trail design and grades should not exceed 10 percent. Long grades should employ diversions to slow water velocity during peak runoff events and reduce trail erosion. Cribbing structures should be utilized to stabilize shallow soils.

These high elevation soils are truly unique ecologically. The surfaces of some of these soils have an organic layer that can exceed 20 inches thick on an otherwise well-drained landform. These organic deposits build up because of cold temperatures and acidic soil conditions which lead to low microbial activity and low oxidation rates of the organic matter. The subsoils are also very high in organic matter and in many cases are at the break between mineral and organic soil material. Subsoils are also highly acidic, some with pH’s less than 3.5 (ultra acid), and have very high contents of oxides of iron and aluminum (amorphous materials). Amorphous materials are mineral assemblages rich in iron and aluminum with very high water holding capacity and

reactivity similar to clays, but lack the structure and plasticity. These soils, although not very extensive, may be a very important medium for carbon sequestration.

993F—Santanoni-Skylight complex, 35 to 80 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are sandy and gravelly, moderately deep to shallow, very steep, and somewhat excessively drained to excessively drained. It is on backslopes of glaciated mountain slopes in the Adirondack High Peaks Region. Areas range from 20 to 1,915 acres in size.

Map Unit Composition

Major Components
Santanoni, very rocky, very bouldery: 45 percent
Skylight, very rocky, very bouldery: 30 percent

Inclusions
Esther: 5 percent
Ricker: 5 percent
Rock outcrop: 5 percent
Wallface: 5 percent
Couchsachraga: 3 percent
Unnamed: 2 percent

The Esther, Ricker, Wallface, and Couchsachraga soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Esther, Ricker, Wallface, and Couchsachraga soils occupy similar positions, but Esther soils are very deep and are loamy; Ricker soils are organic; Wallface soils are loamy; and Couchsachraga soils are very shallow. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Santanoni, very rocky, very bouldery: no
  Skylight, very rocky, very bouldery: no
Hydrologic group:
  Santanoni, very rocky, very bouldery: A
  Skylight, very rocky, very bouldery: D

Soil Properties and Qualities

Santanoni, very rocky, very bouldery
Drainage class: excessively drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: high

Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: sandy and gravelly colluvium derived from sandy and gravelly till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: ultra acid to very strongly acid (1.8 to 5.0)
- 3 to 7 inches: extremely acid to strongly acid (3.5 to 5.5)
- 7 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
- 14 to 31 inches: extremely acid to strongly acid (3.5 to 5.5)
- 31 to 39 inches: extremely acid to strongly acid (3.5 to 5.5)
- 39 inches, bedrock

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
- 3 to 7 inches: rapid or very rapid (6 to 100 inches/hour)
- 7 to 14 inches: rapid or very rapid (6 to 100 inches/hour)
- 14 to 31 inches: rapid or very rapid (6 to 100 inches/hour)
- 31 to 39 inches: rapid or very rapid (6 to 100 inches/hour)
- 39 inches, bedrock

Skylight, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: sandy colluvium derived from gneiss and/or sandy residuum weathered from gneiss and/or sandy till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 5 inches: ultra acid or extremely acid (1.8 to 4.4)
- 5 to 9 inches: ultra acid to very strongly acid (1.8 to 5.0)
- 9 to 15 inches: extremely acid to strongly acid (3.5 to 5.5)
- 15 inches, bedrock

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 9 inches: rapid or very rapid (6 to 100 inches/hour)
- 9 to 15 inches: rapid or very rapid (6 to 100 inches/hour)
- 15 inches, bedrock

Use and Management

The areas of the county above 3,000 feet in elevation, within the cryic soil temperature zone, lie almost entirely within the New York State Forest Preserve. They cover approximately 76,750 acres or about 7 percent of the county. Because these areas have been designated “forever wild” by law, discussions of land use interpretations of the soils for agriculture, forestry, and residential development are not necessary, as these parts of the county are not subject to development for these uses. Interpretive data for these uses however, can still be found in the tables. The

primary uses for interpretive data for these high elevation soils probably will be broad-based engineering interpretations for watershed planning, recreational uses, and environmental management of these unique ecological areas.

The majority of these soils, about 75 percent, are shallow or very shallow to bedrock, 15 percent are moderately deep to bedrock, and only 10 percent are very deep. Ricker, Couchsachraga, and Skylight soils are very shallow (1 to 10 inches over bedrock) or shallow (10 to 20 inches over bedrock). Wallface and Santanoni soils are moderately deep (20 to 40 inches over bedrock). Esther and Andic Cryaquods soils are very deep (greater than 60 inches deep to bedrock).

An example of an engineering interpretation for these soils would entail estimating the water storage capacity of the watershed for planning purposes downstream, such as sizing of road culverts and construction or rehab of bridges. Shallow soils would have the least storage capability within the watershed. However, water holding capacity of these soils is greatly increased, compared to other soils in the county of the same depth class, because of their very high content of organic matter and amorphous materials (complexes of iron and aluminum oxides).

Interpretations for recreational uses in the High Peaks Region center on impacts to soil resources from hiking and camping. Because of the very high organic matter and amorphous material content in the subsoil, these high elevation soils have low bearing strength, especially when wet. Special care should be taken when locating and constructing trails and campsites to avoid compaction and subsequent erosion. Trail design needs to address the unstable nature of these soils, especially those that are shallow to bedrock. Switchbacks should be employed in trail design and grades should not exceed 10 percent. Long grades should employ diversions to slow water velocity during peak runoff events and reduce trail erosion. Cribbing structures should be utilized to stabilize shallow soils.

These high elevation soils are truly unique ecologically. The surfaces of some of these soils have an organic layer that can exceed 20 inches thick on an otherwise well-drained landform. These organic deposits build up because of cold temperatures and acidic soil conditions which lead to low microbial activity and low oxidation rates of the organic matter. The subsoils are also very high in organic matter and in many cases are at the break between mineral and organic soil material. Subsoils are also highly acidic, some with pH's less than 3.5 (ultra acid), and have very high contents of oxides of iron and aluminum (amorphous materials). Amorphous materials are mineral assemblages rich in iron and aluminum with very high water holding capacity and reactivity similar to clays, but lack the structure and plasticity. These soils, although not very extensive, may be a very important medium for carbon sequestration.

995D—Ricker-Couchsachraga-Skylight complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are organic and sandy, shallow to very shallow, moderately steep and steep, and well drained to excessively drained. It is on summits, shoulders, and backslopes of glaciated mountain slopes in the Adirondack High Peaks Region. Areas range from 20 to 310 acres in size.

Map Unit Composition

Major Components

Ricker, very rocky, very bouldery: 30 percent
Couchsachraga, very rocky, very bouldery: 25 percent
Skylight, very rocky, very bouldery: 20 percent

Inclusions
Unnamed: 10 percent
Rock outcrop: 5 percent
Santanoni: 5 percent
Wallface: 3 percent
Esther: 2 percent

The Santanoni, Wallface, and Esther soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Santanoni, Wallface, and Esther soils occupy similar positions, but Santanoni soils are moderately deep; Wallface soils are moderately deep and are loamy; and Esther soils are very deep and loamy. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
 Ricker, very rocky, very bouldery: no
 Couchsachraga, very rocky, very bouldery: no
 Skylight, very rocky, very bouldery: no
Hydrologic group:
 Ricker, very rocky, very bouldery: D
 Couchsachraga, very rocky, very bouldery: D
 Skylight, very rocky, very bouldery: D

Soil Properties and Qualities

Ricker, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to low
Potential frost action: low
Shrink-swell potential: not rated
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: non-saturated organic material
Reaction (pH):
 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
 1 to 6 inches: ultra acid or extremely acid (1.8 to 4.4)
 6 to 11 inches: ultra acid or extremely acid (1.8 to 4.4)
 11 inches, bedrock
Permeability:
 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
 1 to 6 inches: moderately rapid or rapid (2 to 20 inches/hour)
 6 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 11 inches, bedrock

Couchsachraga, very rocky, very bouldery
Drainage class: excessively drained
Depth to bedrock: 4 to 10 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low

Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: sandy colluvium derived from gneiss and/or sandy residuum weathered from gneiss and/or sandy till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
  9 inches, bedrock
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 9 inches: rapid or very rapid (6 to 100 inches/hour)
  9 inches, bedrock

Skylight, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: sandy colluvium derived from gneiss and/or sandy residuum weathered from gneiss and/or sandy till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 5 inches: ultra acid or extremely acid (1.8 to 4.4)
  5 to 9 inches: ultra acid to very strongly acid (1.8 to 5.0)
  9 to 15 inches: extremely acid to strongly acid (3.5 to 5.5)
  15 inches, bedrock
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 9 inches: rapid or very rapid (6 to 100 inches/hour)
  9 to 15 inches: rapid or very rapid (6 to 100 inches/hour)
  15 inches, bedrock

Use and Management

The areas of the county above 3,000 feet in elevation, within the cryic soil temperature zone, lie almost entirely within the New York State Forest Preserve. They cover approximately 76,750 acres or about 7 percent of the county. Because these areas have been designated “forever wild” by law, discussions of land use interpretations of the soils for agriculture, forestry, and residential development are not necessary, as these parts of the county are not subject to development for these uses. Interpretive data for these uses however, can still be found in the tables. The primary uses for interpretive data for these high elevation soils probably will be broad-based engineering interpretations for watershed planning, recreational uses, and environmental management of these unique ecological areas.

The majority of these soils, about 75 percent, are shallow or very shallow to bedrock, 15 percent are moderately deep to bedrock, and only 10 percent are very deep. Ricker, Couchsachraga, and Skylight soils are very shallow (1 to 10 inches over bedrock) or shallow (10 to 20 inches over bedrock). Wallface and Santanoni soils are moderately deep (20 to 40 inches over bedrock). Esther and Andic Cryaquods soils are very deep (greater than 60 inches deep to bedrock).

An example of an engineering interpretation for these soils would entail estimating the water storage capacity of the watershed for planning purposes downstream, such as sizing of road culverts and construction or rehab of bridges. Shallow soils would have the least storage capability within the watershed. However, water holding capacity of these soils is greatly increased, compared to other soils in the county of the same depth class, because of their very high content of organic matter and amorphous materials (complexes of iron and aluminum oxides).

Interpretations for recreational uses in the High Peaks Region center on impacts to soil resources from hiking and camping. Because of the very high organic matter and amorphous material content in the subsoil, these high elevation soils have low bearing strength, especially when wet. Special care should be taken when locating and constructing trails and campsites to avoid compaction and subsequent erosion. Trail design needs to address the unstable nature of these soils, especially those that are shallow to bedrock. Switchbacks should be employed in trail design and grades should not exceed 10 percent. Long grades should employ diversions to slow water velocity during peak runoff events and reduce trail erosion. Cribbing structures should be utilized to stabilize shallow soils.

These high elevation soils are truly unique ecologically. The surfaces of some of these soils have an organic layer that can exceed 20 inches thick on an otherwise well-drained landform. These organic deposits build up because of cold temperatures and acidic soil conditions which lead to low microbial activity and low oxidation rates of the organic matter. The subsoils are also very high in organic matter and in many cases are at the break between mineral and organic soil material. Subsoils are also highly acidic, some with pH’s less than 3.5 (ultra acid), and have very high contents of oxides of iron and aluminum (amorphous materials). Amorphous materials are mineral assemblages rich in iron and aluminum with very high water holding capacity and reactivity similar to clays, but lack the structure and plasticity. These soils, although not very extensive, may be a very important medium for carbon sequestration.

995F—Ricker-Couchsachraga-Skylight complex, 35 to 80 percent slopes, very rocky, very bouldery

Setting

This broadly defined map unit consists of soils that are organic and sandy, shallow to very shallow, very steep, and well to excessively drained. It is on backslopes of glaciated mountain slopes in the Adirondack High Peaks Region. Areas range from 15 to 3,815 acres in size.

Map Unit Composition

Major Components
Ricker, very rocky, very bouldery: 30 percent
Couchsachraga, very rocky, very bouldery: 25 percent
Skylight, very rocky, very bouldery: 20 percent

Inclusions
Rock outcrop: 9 percent
Unnamed: 6 percent

Santanoni: 5 percent
Wallface: 3 percent
Esther: 2 percent

The Santanoni, Wallface, and Esther soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Santanoni, Wallface, and Esther soils occupy similar positions, but Santanoni soils are moderately deep, Wallface soils are moderately deep and are loamy, and Esther soils are very deep and loamy. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
- Ricker, very rocky, very bouldery: no
- Couchsachraga, very rocky, very bouldery: no
- Skylight, very rocky, very bouldery: no

Hydrologic group:
- Ricker, very rocky, very bouldery: D
- Couchsachraga, very rocky, very bouldery: D
- Skylight, very rocky, very bouldery: D

Soil Properties and Qualities

Ricker, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to low
Potential frost action: low
Shrink-swell potential: not rated
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: non-saturated organic material
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 6 inches: ultra acid or extremely acid (1.8 to 4.4)
- 6 to 11 inches: ultra acid or extremely acid (1.8 to 4.4)
- 11 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 6 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 6 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 inches, bedrock

Couchsachraga, very rocky, very bouldery
Drainage class: excessively drained
Depth to bedrock: 4 to 10 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high

Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: sandy colluvium derived from gneiss and/or sandy residuum weathered from gneiss and/or sandy till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
- 4 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
- 9 inches, bedrock

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 9 inches: rapid or very rapid (6 to 100 inches/hour)
- 9 inches, bedrock

Skylight, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: sandy colluvium derived from gneiss and/or sandy residuum weathered from gneiss and/or sandy till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 5 inches: ultra acid or extremely acid (1.8 to 4.4)
- 5 to 9 inches: ultra acid to very strongly acid (1.8 to 5.0)
- 9 to 15 inches: extremely acid to strongly acid (3.5 to 5.5)
- 15 inches, bedrock

Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 9 inches: rapid or very rapid (6 to 100 inches/hour)
9 to 15 inches: rapid or very rapid (6 to 100 inches/hour)
15 inches, bedrock

Use and Management

The areas of the county above 3,000 feet in elevation, within the cryic soil temperature zone, lie almost entirely within the New York State Forest Preserve. They cover approximately 76,750 acres or about 7 percent of the county. Because these areas have been designated “forever wild” by law, discussions of land use interpretations of the soils for agriculture, forestry, and residential development are not necessary, as these parts of the county are not subject to development for these uses. Interpretive data for these uses however, can still be found in the tables. The primary uses for interpretive data for these high elevation soils probably will be broad-based engineering interpretations for watershed planning, recreational uses, and environmental management of these unique ecological areas.

The majority of these soils, about 75 percent, are shallow or very shallow to bedrock, 15 percent are moderately deep to bedrock, and only 10 percent are very

deep. Ricker, Couchsachraga, and Skylight soils are very shallow (1 to 10 inches over bedrock) or shallow (10 to 20 inches over bedrock). Wallface and Santanoni soils are moderately deep (20 to 40 inches over bedrock). Esther and Andic Cryaquods soils are very deep (greater than 60 inches deep to bedrock).

An example of an engineering interpretation for these soils would entail estimating the water storage capacity of the watershed for planning purposes downstream, such as sizing of road culverts and construction or rehab of bridges. Shallow soils would have the least storage capability within the watershed. However, water holding capacity of these soils is greatly increased, compared to other soils in the county of the same depth class, because of their very high content of organic matter and amorphous materials (complexes of iron and aluminum oxides).

Interpretations for recreational uses in the High Peaks Region center on impacts to soil resources from hiking and camping. Because of the very high organic matter and amorphous material content in the subsoil, these high elevation soils have low bearing strength, especially when wet. Special care should be taken when locating and constructing trails and campsites to avoid compaction and subsequent erosion. Trail design needs to address the unstable nature of these soils, especially those that are shallow to bedrock. Switchbacks should be employed in trail design and grades should not exceed 10 percent. Long grades should employ diversions to slow water velocity during peak runoff events and reduce trail erosion. Cribbing structures should be utilized to stabilize shallow soils.

These high elevation soils are truly unique ecologically. The surfaces of some of these soils have an organic layer that can exceed 20 inches thick on an otherwise well-drained landform. These organic deposits build up because of cold temperatures and acidic soil conditions which lead to low microbial activity and low oxidation rates of the organic matter. The subsoils are also very high in organic matter and in many cases are at the break between mineral and organic soil material. Subsoils are also highly acidic, some with pH's less than 3.5 (ultra acid), and have very high contents of oxides of iron and aluminum (amorphous materials). Amorphous materials are mineral assemblages rich in iron and aluminum with very high water holding capacity and reactivity similar to clays, but lack the structure and plasticity. These soils, although not very extensive, may be a very important medium for carbon sequestration.

998F—Rock outcrop-Ricker-Skylight complex, 35 to 80 percent slopes, very bouldery

Setting

This broadly defined map unit consists of areas of exposed bedrock and soils that are organic and sandy, shallow to very shallow, very steep, and well drained to excessively drained. It is on backslopes of glaciated mountain slopes in the Adirondack High Peaks Region. Areas range from 15 to 585 acres in size.

Map Unit Composition

Major Components
Rock outcrop, very bouldery: 30 percent
Ricker, very bouldery: 25 percent
Skylight, very bouldery: 20 percent

Inclusions
Couchsachraga: 10 percent
Santanoni: 5 percent
Unnamed: 5 percent
Wallface: 3 percent
Esther: 2 percent

The Couchsachraga, Santanoni, Wallface, and Esther soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Couchsachraga, Santanoni, Wallface, and Esther soils occupy similar positions, but Santanoni soils are moderately deep, Wallface soils are moderately deep and are loamy, and Esther soils are very deep and loamy. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Rock outcrop, very bouldery: unranked
    Ricker, very bouldery: no
    Skylight, very bouldery: no
Hydrologic group:
    Rock outcrop, very bouldery: unranked
    Ricker, very bouldery: D
    Skylight, very bouldery: D

Rock outcrop, very bouldery
Characteristics not defined for this component.

Ricker, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to low
Potential frost action: low
Shrink-swell potential: not rated
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated mountain slopes
Parent material: non-saturated organic material
Reaction (pH):
    0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
    1 to 6 inches: ultra acid or extremely acid (1.8 to 4.4)
    6 to 11 inches: ultra acid or extremely acid (1.8 to 4.4)
    11 inches, bedrock
Permeability:
    0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
    1 to 6 inches: moderately rapid or rapid (2 to 20 inches/hour)
    6 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    11 inches, bedrock

Skylight, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery

Landform: glaciated mountain slopes
Parent material: sandy colluvium derived from gneiss and/or sandy residuum weathered from gneiss and/or sandy till derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 5 inches: ultra acid or extremely acid (1.8 to 4.4)
5 to 9 inches: ultra acid to very strongly acid (1.8 to 5.0)
9 to 15 inches: extremely acid to strongly acid (3.5 to 5.5)
15 inches, bedrock
Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 9 inches: rapid or very rapid (6 to 100 inches/hour)
9 to 15 inches: rapid or very rapid (6 to 100 inches/hour)
15 inches, bedrock

Use and Management

The areas of the county above 3,000 feet in elevation, within the cryic soil temperature zone, lie almost entirely within the New York State Forest Preserve. They cover approximately 76,750 acres or about 7 percent of the county. Because these areas have been designated “forever wild” by law, discussions of land use interpretations of the soils for agriculture, forestry, and residential development are not necessary, as these parts of the county are not subject to development for these uses. Interpretive data for these uses however, can still be found in the tables. The primary uses for interpretive data for these high elevation soils probably will be broad-based engineering interpretations for watershed planning, recreational uses, and environmental management of these unique ecological areas.

The majority of these soils, about 75 percent, are shallow or very shallow to bedrock, 15 percent are moderately deep to bedrock, and only 10 percent are very deep. Ricker, Couchsachraga, and Skylight soils are very shallow (1 to 10 inches over bedrock) or shallow (10 to 20 inches over bedrock). Wallface and Santanoni soils are moderately deep (20 to 40 inches over bedrock). Esther and Andic Cryaquods soils are very deep (greater than 60 inches deep to bedrock).

An example of an engineering interpretation for these soils would entail estimating the water storage capacity of the watershed for planning purposes downstream, such as sizing of road culverts and construction or rehab of bridges. Shallow soils would have the least storage capability within the watershed. However, water holding capacity of these soils is greatly increased, compared to other soils in the county of the same depth class, because of their very high content of organic matter and amorphous materials (complexes of iron and aluminum oxides).

Interpretations for recreational uses in the High Peaks Region center on impacts to soil resources from hiking and camping. Because of the very high organic matter and amorphous material content in the subsoil, these high elevation soils have low bearing strength, especially when wet. Special care should be taken when locating and constructing trails and campsites to avoid compaction and subsequent erosion. Trail design needs to address the unstable nature of these soils, especially those that are shallow to bedrock. Switchbacks should be employed in trail design and grades should not exceed 10 percent. Long grades should employ diversions to slow water velocity during peak runoff events and reduce trail erosion. Cribbing structures should be utilized to stabilize shallow soils.

These high elevation soils are truly unique ecologically. The surfaces of some of these soils have an organic layer that can exceed 20 inches thick on an otherwise well-drained landform. These organic deposits build up because of cold temperatures

and acidic soil conditions which lead to low microbial activity and low oxidation rates of the organic matter. The subsoils are also very high in organic matter and in many cases are at the break between mineral and organic soil material. Subsoils are also highly acidic, some with pH's less than 3.5 (ultra acid), and have very high contents of oxides of iron and aluminum (amorphous materials). Amorphous materials are mineral assemblages rich in iron and aluminum with very high water holding capacity and reactivity similar to clays, but lack the structure and plasticity. These soils, although not very extensive, may be a very important medium for carbon sequestration.

AdA—Adams loamy sand, 0 to 3 percent slopes

Setting

This soil is sandy, very deep, nearly level, and somewhat excessively drained. It is on summits of deltas, outwash plains, and kame terraces in the Adirondack Upland. Areas range from 5 to 350 acres in size.

Map Unit Composition

Major Components
Adams: 85 percent

Inclusions
Colton: 5 percent
Duxbury: 5 percent
Croghan: 4 percent
Unnamed: 1 percent

The excessively drained Colton, well drained Duxbury, and moderately well drained Croghan soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton and Duxbury soils occupy similar positions, but Colton soils are sandy and gravelly, and Duxbury soils are loamy over sandy or gravelly. Croghan soils are on small depressions or drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: deltas, kame terraces, outwash plains
Parent material: sandy glaciolacustrine deposits derived from gneiss

Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

AdB—Adams loamy sand, 3 to 8 percent slopes

Setting

This soil is sandy, very deep, gently sloping, and somewhat excessively drained. It is on summits and shoulders of deltas, outwash plains, and kame terraces in the Adirondack Upland. Areas range from 3 to 250 acres in size.

Map Unit Composition

Major Components
Adams: 85 percent

Inclusions
Colton: 5 percent
Duxbury: 5 percent
Croghan: 4 percent
Unnamed: 1 percent

The excessively drained Colton, well drained Duxbury, and moderately well drained Croghan soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton and Duxbury soils occupy similar positions, but Colton soils are sandy and gravelly, and Duxbury soils are loamy over sandy or gravelly. Croghan soils are in small depressions or along drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: deltas, outwash plains, kame terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
  8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
  23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)

2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

AdC—Adams loamy sand, 8 to 15 percent slopes

Setting

This soil is sandy, very deep, strongly sloping, and somewhat excessively drained.

It is on shoulders and backslopes of deltas, outwash plains, and kame terraces in the Adirondack Upland. Areas range from 4 to 210 acres in size.

Map Unit Composition

Major Components
Adams: 85 percent

Inclusions
Colton: 5 percent
Duxbury: 5 percent
Unnamed: 5 percent

The excessively drained Colton, and well drained Duxbury soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton and Duxbury soils occupy similar positions, but Colton soils are sandy and gravelly, and Duxbury soils are loamy over sandy or gravelly. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: deltas, outwash plains, kame terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
  8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
  23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
  5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
  8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
  14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland

- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability due to strongly sloping areas.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

AdD—Adams loamy sand, 15 to 25 percent slopes

Setting

This soil is sandy, very deep, moderately steep, and somewhat excessively drained. It is on backslopes of deltas, outwash plains, and kame terraces in the Adirondack Upland. Areas range from 3 to 230 acres in size.

Map Unit Composition

Major Components
Adams: 85 percent

Inclusions
Colton: 5 percent
Duxbury: 4 percent
Unnamed: 4 percent
Monadnock: 2 percent

The excessively drained Colton, and well drained Duxbury and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton, Duxbury, and Monadnock soils occupy similar positions, but Colton soils are sandy and gravelly; Duxbury and Monadnock soils are loamy over sandy or gravelly; and Monadnock soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6e
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: deltas, outwash plains, kame terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
  8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
  23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
  5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
  8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
  14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture

- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

AdE—Adams loamy sand, 25 to 45 percent slopes

Setting

This soil is sandy, very deep, very steep, and somewhat excessively drained. It is on backslopes of deltas, outwash plains, and kame terraces in the Adirondack Upland. Areas range from 4 to 200 acres in size.

Map Unit Composition

Major Components
Adams: 85 percent

Inclusions
Colton: 5 percent
Duxbury: 4 percent
Monadnock: 3 percent
Unnamed: 3 percent

The excessively drained Colton, and well drained Duxbury and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton, Duxbury, and Monadnock soils occupy similar positions, but Colton soils are sandy and gravelly; Duxbury and Monadnock soils are loamy over sandy or gravelly; and Monadnock soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7e
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: deltas, outwash plains, kame terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
  8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
  23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)

2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations due to steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

AkA—Adirondack fine sandy loam, 0 to 3 percent slopes, very bouldery

Setting

This soil is loamy, very deep, nearly level, and somewhat poorly drained. It is on toeslopes and footslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 37 acres in size.

Map Unit Composition

Major Components
Adirondack, very bouldery: 85 percent

Inclusions
Tahawus: 5 percent
Skerry: 4 percent
Sunapee: 3 percent
Unnamed: 2 percent
Ampersand: 1 percent

The very poorly drained Tahawus, moderately well drained Skerry and Sunapee, and Ampersand soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Tahawus soils occupy lower positions, and are sandy. Skerry and Sunapee soils occupy slightly higher positions, but Sunapee soils lack the dense substratum. Ampersand soils occupy similar positions, but have higher organic matter content. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Adirondack, very bouldery: no
Hydrologic group:
  Adirondack, very bouldery: C/D

Soil Properties and Qualities

Adirondack, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
  6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)

8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)

Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
4 to 6 inches: moderate (0.6 to 2 inches/hour)
6 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 9 inches: moderate (0.6 to 2 inches/hour)
9 to 18 inches: moderate (0.6 to 2 inches/hour)
18 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 34 inches: slow (0.06 to 0.2 inches/hour)
34 to 43 inches: slow (0.06 to 0.2 inches/hour)
43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture

- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Planting adapted species can minimize the root damage caused by frost action.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to

them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness. Consult the Forestland Productivity table “Trees to Manage” section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

AkB—Adirondack fine sandy loam, 3 to 8 percent slopes, very bouldery

Setting

This soil is loamy, very deep, gently sloping, and somewhat poorly drained. It is on footslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 195 acres in size.

Map Unit Composition

Major Components
Adirondack, very bouldery: 85 percent

Inclusions
Tahawus: 5 percent
Skerry: 4 percent
Sunapee: 3 percent
Unnamed: 2 percent
Ampersand: 1 percent

The very poorly drained Tahawus, moderately well drained Skerry and Sunapee, and Ampersand soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Tahawus soils occupy lower positions, and are sandy. Skerry and Sunapee soils occupy slightly higher positions, but Sunapee soils lack the dense substratum. Ampersand soils occupy similar positions, but have higher organic matter content. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Adirondack, very bouldery: no
Hydrologic group:
Adirondack, very bouldery: C/D

Soil Properties and Qualities

Adirondack, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

4 to 6 inches: moderate (0.6 to 2 inches/hour)
6 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 9 inches: moderate (0.6 to 2 inches/hour)
9 to 18 inches: moderate (0.6 to 2 inches/hour)
18 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 34 inches: slow (0.06 to 0.2 inches/hour)
34 to 43 inches: slow (0.06 to 0.2 inches/hour)
43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Planting adapted species can minimize the root damage caused by frost action.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table “Trees to Manage” section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

AmB—Amenia fine sandy loam, 2 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and moderately well drained. It is on summits, shoulders, and backslopes of drumlinoid ridges in the Champlain Valley. Areas range from 3 to 365 acres in size.

Map Unit Composition

Major Components
Amenia: 85 percent

Inclusions
Nellis: 5 percent
Massena: 4 percent
Bombay: 2 percent
Cayuga: 2 percent
Unnamed: 2 percent

The well drained Nellis; somewhat poorly drained Massena, Bombay, and Cayuga soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Nellis soils occupy higher positions. Massena soils are on small depressions and drainageways. Bombay and Cayuga soils occupy similar positions, but Bombay soils have a slightly higher clay content in the subsoil, and Cayuga soils are clayey over loamy. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Amenia: no
Hydrologic group:
  Amenia: D

Soil Properties and Qualities

Amenia
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: drumlinoid ridges
Parent material: loamy lodgment till derived from limestone
Reaction (pH):
  0 to 9 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  9 to 14 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  14 to 21 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  21 to 36 inches: slightly alkaline to strongly alkaline (7.4 to 9.0)
  36 to 48 inches: slightly alkaline to strongly alkaline (7.4 to 9.0)
  48 to 72 inches: slightly alkaline to strongly alkaline (7.4 to 9.0)
Permeability:
  0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  14 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  21 to 36 inches: slow (0.06 to 0.2 inches/hour)
  36 to 48 inches: slow (0.06 to 0.2 inches/hour)
  48 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Pasture
- These soils are well suited to pasture.

- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

AmC—Amenia fine sandy loam, 8 to 15 percent slopes

Setting

This soil is loamy, very deep, strongly sloping, and moderately well drained. It is on shoulders and backslopes of drumlinoid ridges in the Champlain Valley. Areas range from 3 to 65 acres in size.

Map Unit Composition

Major Components
Amenia: 85 percent

Inclusions
Nellis: 6 percent
Massena: 3 percent
Bombay: 2 percent
Cayuga: 2 percent
Unnamed: 2 percent

The well drained Nellis; somewhat poorly drained Massena, Bombay, and Cayuga soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Nellis soils occupy higher positions. Massena soils are on small depressions and drainageways. Bombay and Cayuga soils occupy similar positions, but Bombay soils have a slightly higher clay content in the subsoil, and Cayuga soils are clayey over loamy. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Amenia: no
Hydrologic group:
  Amenia: D

Soil Properties and Qualities

Amenia
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Landform: drumlinoid ridges
Parent material: loamy lodgment till derived from limestone
Reaction (pH):
  0 to 9 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  9 to 14 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  14 to 21 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  21 to 36 inches: slightly alkaline to strongly alkaline (7.4 to 9.0)
  36 to 48 inches: slightly alkaline to strongly alkaline (7.4 to 9.0)
  48 to 72 inches: slightly alkaline to strongly alkaline (7.4 to 9.0)

Permeability:
- 0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 14 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 21 to 36 inches: slow (0.06 to 0.2 inches/hour)
- 36 to 48 inches: slow (0.06 to 0.2 inches/hour)
- 48 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when

excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

BcB—Becket fine sandy loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and well drained. It is on summits and shoulders of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 4 to 205 acres in size.

Map Unit Composition

Major Components
Becket: 85 percent

Inclusions
Skerry: 8 percent
Adirondack: 3 percent
Monadnock: 3 percent
Unnamed: 1 percent

The moderately well drained Skerry, somewhat poorly drained Adirondack, and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Skerry soils occupy slightly lower positions. Adirondack soils are on small depressions and drainageways. Monadnock soils occupy similar positions but lack the dense substratum. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e

Hydric soil rating:
  Becket: no
Hydrologic group:
  Becket: B

Soil Properties and Qualities

Becket
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
  18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
  33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
  47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

BcC—Becket fine sandy loam, 8 to 15 percent slopes

Setting

This soil is loamy, very deep, strongly sloping, and well drained. It is on backslopes and shoulders of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 105 acres in size.

Map Unit Composition

Major Components
Becket: 85 percent

Inclusions
Monadnock: 5 percent

Skerry: 5 percent
Adirondack: 2 percent
Unnamed: 2 percent
Tunbridge: 1 percent

The Monadnock and Tunbridge, moderately well drained Skerry, and somewhat poorly drained Adirondack soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Monadnock and Tunbridge soils occupy similar positions but Monadnock soils lack the dense substratum, and Tunbridge soils are moderately deep to bedrock. Skerry soils occupy slightly lower positions. Adirondack soils are on small depressions and drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Becket: no
Hydrologic group:
  Becket: B

Soil Properties and Qualities

Becket
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
  18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
  33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
  47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- Erosion control is needed when pastures are renovated.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

BeB—Becket fine sandy loam, 3 to 8 percent slopes, very bouldery

Setting

This soil is loamy, very deep, gently sloping, and well drained. It is on summits and shoulders of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 4 to 200 acres in size.

Map Unit Composition

Major Components
Becket, very bouldery: 85 percent

Inclusions
Skerry: 8 percent
Adirondack: 3 percent
Monadnock: 3 percent
Unnamed: 1 percent

The moderately well drained Skerry, somewhat poorly drained Adirondack, and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Skerry soils occupy slightly lower positions. Adirondack soils are on small depressions and drainageways. Monadnock soils occupy similar positions but lack the dense substratum. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Becket, very bouldery: no
Hydrologic group:
  Becket, very bouldery: B

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium

Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
- 3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
- 5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
- 9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
- 18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
- 33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
- 47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.

- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

BeC—Becket fine sandy loam, 8 to 15 percent slopes, very bouldery

Setting

This soil is loamy, very deep, strongly sloping, and well drained. It is on backslopes and shoulders of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 345 acres in size.

Map Unit Composition

Major Components
Becket, very bouldery: 85 percent

Inclusions
Monadnock: 5 percent
Skerry: 5 percent
Adirondack: 2 percent
Unnamed: 2 percent
Tunbridge: 1 percent

The Monadnock and Tunbridge, moderately well drained Skerry, and somewhat poorly drained Adirondack soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Monadnock and Tunbridge

soils occupy similar positions but Monadnock soils lack the dense substratum, and Tunbridge soils are moderately deep to bedrock. Skerry soils occupy slightly lower positions. Adirondack soils are on small depressions and drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Becket, very bouldery: no
Hydrologic group:
    Becket, very bouldery: B

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
    3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
    5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
    9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
    18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
    33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
    47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
    0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
    2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
    47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.

- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

BeD—Becket fine sandy loam, 15 to 35 percent slopes, very bouldery

Setting

This soil is loamy, very deep, steep, and well drained. It is on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 4 to 485 acres in size.

Map Unit Composition

Major Components
Becket, very bouldery: 85 percent

Inclusions
Monadnock: 6 percent
Unnamed: 5 percent
Tunbridge: 3 percent
Skerry: 1 percent

The Monadnock, Tunbridge, and moderately well drained Skerry soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Monadnock and Tunbridge soils occupy similar positions but Monadnock soils lack the dense substratum, and Tunbridge soils are moderately deep to bedrock. Skerry soils are on drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Becket, very bouldery: no
Hydrologic group:
    Becket, very bouldery: B

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high

Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
- 3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
- 5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
- 9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
- 18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
- 33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
- 47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- The slope may restrict the use of most farm equipment.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails

prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

BeF—Becket fine sandy loam, 35 to 60 percent slopes, very bouldery

Setting

This soil is loamy, very deep, very steep, and well drained. It is on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 7 to 150 acres in size.

Map Unit Composition

Major Components
Becket, very bouldery: 85 percent

Inclusions
Monadnock: 7 percent
Unnamed: 5 percent
Tunbridge: 3 percent

The Monadnock and Tunbridge soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Monadnock and Tunbridge soils occupy similar positions but Monadnock soils lack the dense substratum, and Tunbridge soils are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Becket, very bouldery: no
Hydrologic group:
  Becket, very bouldery: B

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
  18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
  33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
  47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones, and the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes. Consult the Water Features table for months of seasonal saturation.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.

- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

BkC—Becket-Tunbridge complex, 8 to 15 percent slopes, rocky, very bouldery

Setting

These soils are loamy, very deep and moderately deep, strongly sloping, and well drained. They are on backslopes and shoulders of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 225 acres in size.

Map Unit Composition

Major Components
Becket, rocky, very bouldery: 45 percent
Tunbridge, rocky, very bouldery: 30 percent

Inclusions
Lyman: 7 percent
Monadnock: 7 percent
Skerry: 6 percent
Adirondack: 2 percent
Unnamed: 2 percent
Rock outcrop: 1 percent

The Lyman and Monadnock, moderately well drained Skerry, and somewhat poorly drained Adirondack soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Lyman and Monadnock soils occupy similar positions but Lyman soils are shallow to bedrock, and Monadnock soils lack the dense substratum. Skerry soils occupy slightly lower positions than Becket soils. Adirondack soils are on small depressions and drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Becket, rocky, very bouldery: no
  Tunbridge, rocky, very bouldery: no
Hydrologic group:
  Becket, rocky, very bouldery: B
  Tunbridge, rocky, very bouldery: B

Soil Properties and Qualities

Becket, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
  18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
  33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
  47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
  7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
  18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
  27 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

BkD—Becket-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

These soils are loamy, very deep and moderately deep, moderately steep and steep, and well drained. They are on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 500 acres in size.

Map Unit Composition

Major Components
Becket, rocky, very bouldery: 45 percent
Tunbridge, rocky, very bouldery: 30 percent

Inclusions
Lyman: 8 percent
Monadnock: 7 percent
Knob Lock: 5 percent
Skerry: 3 percent
Rock outcrop: 1 percent
Unnamed: 1 percent

The Lyman, Monadnock, Knob Lock, and moderately well drained Skerry soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Lyman, Monadnock, and Knob Lock soils occupy similar positions, but Lyman soils are shallow to bedrock; Monadnock soils lack the dense substratum; and Knob Lock soils are organic and very shallow to shallow. Skerry soils are on drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Becket, rocky, very bouldery: no
  Tunbridge, rocky, very bouldery: no
Hydrologic group:
  Becket, rocky, very bouldery: B
  Tunbridge, rocky, very bouldery: B

Soil Properties and Qualities

Becket, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 30 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to slightly acid (3.5 to 6.5)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 18 inches: extremely acid to slightly acid (3.5 to 6.5)
  18 to 33 inches: extremely acid to slightly acid (3.5 to 6.5)
  33 to 47 inches: very strongly acid to neutral (4.5 to 7.3)
  47 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 33 to 47 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 47 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
- 7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
- 27 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- The slope may restrict the use of most farm equipment.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10

percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations due to moderately deep soils.
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table limits the capacity of these soils to bear a load without movement. Structures may need special design to avoid damage from wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction site development and building maintenance.
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.

- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

BoB—Bombay gravelly loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and moderately well drained. It is on summits, shoulders, and backslopes of drumlinoid ridges in the Champlain Valley. Areas range from 5 to 95 acres in size.

Map Unit Composition

Major Components
Bombay: 85 percent

Inclusions
Nellis: 5 percent
Massena: 4 percent
Amenia: 2 percent
Cayuga: 2 percent
Unnamed: 2 percent

The well drained Nellis; somewhat poorly drained Massena, Amenia, and Cayuga soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Nellis soils occupy higher positions. Massena soils are in depressions and drainageways. Amenia and Cayuga soils occupy similar positions, but Amenia soils have lower clay content in the subsoil, and Cayuga soils are clayey over loamy. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e

Hydric soil rating:
Bombay: no
Hydrologic group:
Bombay: B/D

Soil Properties and Qualities

Bombay
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Landform: drumlinoid ridges
Parent material: not specified
Reaction (pH):
0 to 10 inches: strongly acid to slightly acid (5.1 to 6.5)
10 to 18 inches: strongly acid to neutral (5.1 to 7.3)
18 to 25 inches: strongly acid to neutral (5.1 to 7.3)
25 to 36 inches: moderately acid to slightly alkaline (5.6 to 7.8)
36 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
0 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
10 to 18 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
18 to 25 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
25 to 36 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
36 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse

grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

BuA—Bucksport mucky peat, 0 to 1 percent slopes

Setting

This soil is mucky, very deep, nearly level, and very poorly drained. It is on bogs and swamps in the Adirondack Upland. Areas range from 7 to 60 acres in size.

Map Unit Composition

Major Components
Bucksport: 85 percent

Inclusions
Wonsqueak: 5 percent
Tahawus: 3 percent

Unnamed: 3 percent
Medomak: 2 percent
Typic Endoaquolls: 2 percent

The Wonsqueak, Tahawus, Medomak, and Typic Endoaquolls soils may be included in areas of this map unit. Also included are organic soils with higher woody fragment content. Wonsqueak, Tahawus, and Typic Endoaquolls soils occupy similar positions, but Wonsqueak soils are less than 51 inches deep to mineral soil material; Tahawus soils are sandy and are on small areas underlain by till; and Typic Endoaquolls soils are loamy and are on small areas underlain by till. Medomak soils are silty and are on small flood plain areas near streams. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Bucksport: yes
Hydrologic group:
  Bucksport: A/D

Soil Properties and Qualities

Bucksport
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: not rated
Surface runoff potential: negligible
Landform: bogs, swamps
Parent material: organic material
Reaction (pH):
  0 to 7 inches: extremely acid to strongly acid (3.6 to 5.5)
  7 to 31 inches: extremely acid to moderately acid (3.6 to 6.0)
  31 to 47 inches: extremely acid to moderately acid (3.6 to 6.0)
  47 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 7 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  7 to 31 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  31 to 47 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  47 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture due to ponding.

Woodland

- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Areas of poorly drained or very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The organic matter content limits soil strength and severely affects the capacity of these soils to bear a load without movement.
- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets

- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Subsidence of the organic material reduces the load-bearing capacity of these soils.

BvA—Burnt Vly peat, 0 to 1 percent slopes

Setting

This soil is mucky, very deep, nearly level, and very poorly drained. It is on bogs and swamps in the Adirondack Upland. Areas range from 3 to 90 acres in size.

Map Unit Composition

Major Components
Burnt Vly: 85 percent

Inclusions
Pleasant Lake: 5 percent
Tahawus: 4 percent
Searsport: 3 percent
Wonsqueak: 2 percent
Rumney: 1 percent

The Pleasant Lake, Tahawus, Searsport, Wonsqueak, and poorly drained Rumney soils may be included in areas of this map unit. Pleasant Lake, Tahawus, Searsport, and Wonsqueak soils occupy similar positions, but Pleasant Lake soils are greater than 51 inches deep to mineral soil material; Searsport soils are sandy and are on small areas underlain by outwash; Tahawus soils are sandy and are on small areas underlain by till; and Wonsqueak soils have a higher pH and are mucky over loamy. Rumney soils are on small flood plain areas near streams and are loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
Burnt Vly: yes
Hydrologic group:
Burnt Vly: B/D

Soil Properties and Qualities

Burnt Vly
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: bogs, swamps
Parent material: organic material over sandy glaciofluvial deposits
Reaction (pH):
0 to 10 inches: ultra acid to very strongly acid (1.8 to 4.5)
10 to 15 inches: ultra acid to very strongly acid (1.8 to 4.5)
15 to 24 inches: ultra acid to very strongly acid (1.8 to 4.5)
24 to 34 inches: ultra acid to very strongly acid (1.8 to 4.5)
34 to 56 inches: extremely acid to slightly acid (3.5 to 6.5)
56 to 72 inches: extremely acid to slightly acid (3.5 to 6.5)
Permeability:
0 to 10 inches: moderately slow to rapid (0.2 to 20 inches/hour)
10 to 15 inches: moderately slow to rapid (0.2 to 20 inches/hour)
15 to 24 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
24 to 34 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

34 to 56 inches: moderate to very rapid (0.6 to 100 inches/hour)
56 to 72 inches: moderate to very rapid (0.6 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture due to ponding.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Areas of poorly drained or very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets
- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

• Subsidence of the organic material reduces the load-bearing capacity of these soils.

CaA—Catden muck, 0 to 1 percent slopes

Setting

This soil is mucky, very deep, nearly level, and very poorly drained. It is on marshes and swamps in the Champlain Valley. Areas range from 3 to 235 acres in size.

Map Unit Composition

Major Components
Catden: 85 percent

Inclusions
Whallonsburg: 5 percent
Livingston: 4 percent
Fluvaquents-Udifluvents: 3 percent
Unnamed: 3 percent

The Whallonsburg, Livingston, and somewhat poorly drained and well drained Fluvaquents-Udifluvents soils may be included in areas of this map unit. Also included are organic soils with higher woody fragment content. Whallonsburg and Livingston soils occupy similar positions, but Whallonsburg soils are less than 51 inches deep to mineral soil material, and Livingston soils are clayey. Fluvaquents-Udifluvents soils are loamy or sandy and are on small flood plain areas near streams. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
Catden: yes
Hydrologic group:
Catden: B/D

Soil Properties and Qualities

Catden
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: not rated
Surface runoff potential: negligible
Landform: marshes, swamps
Parent material: organic material
Reaction (pH):
0 to 3 inches: very strongly acid to neutral (4.5 to 7.3)
3 to 6 inches: very strongly acid to neutral (4.5 to 7.3)
6 to 37 inches: very strongly acid to neutral (4.5 to 7.3)
37 to 46 inches: very strongly acid to neutral (4.5 to 7.3)

46 to 71 inches: very strongly acid to neutral (4.5 to 7.3)
71 to 80 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
0 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 6 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
6 to 37 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
37 to 46 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
46 to 71 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
71 to 80 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture due to ponding.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness.
- Areas of poorly drained or very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The organic matter content limits soil strength and severely affects the capacity of these soils to bear a load without movement.
- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets

- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Subsidence of the organic material reduces the load-bearing capacity of these soils.

CbA—Colton very gravelly loamy sand, 0 to 3 percent slopes, very bouldery

Setting

This soil is sandy and gravelly, very deep, nearly level, and excessively drained. It is on summits of kame terraces and outwash plains in the Adirondack Upland. Areas range from 10 to 110 acres in size.

Map Unit Composition

Major Components
Colton, very bouldery: 85 percent

Inclusions
Adams: 5 percent
Duxbury: 3 percent
Unnamed: 3 percent
Croghan: 2 percent
Monadnock: 2 percent

The somewhat excessively drained Adams, well drained Duxbury and Monadnock, and moderately well drained Croghan soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Adams, Duxbury, and Monadnock soils occupy similar positions, but Adams soils are sandy, Duxbury and Monadnock soils are loamy over sandy or gravelly, and Monadnock soils are underlain by till. Croghan soils are in small depressions or along drainageways, and are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Colton, very bouldery: no
Hydrologic group:
    Colton, very bouldery: A

Soil Properties and Qualities

Colton, very bouldery
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches

Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: negligible
Surface fragment cover: very bouldery
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
 3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
 6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
 13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
 21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
 2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
 3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
 6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
 13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
 21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.

- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

CbB—Colton very gravelly loamy sand, 3 to 8 percent slopes, very bouldery

Setting

This soil is sandy and gravelly, very deep, gently sloping, and excessively drained. It is on summits and shoulders of kame terraces and outwash plains in the Adirondack Upland. Areas range from 5 to 140 acres in size.

Map Unit Composition

Major Components
Colton, very bouldery: 85 percent

Inclusions
Adams: 5 percent
Duxbury: 4 percent
Unnamed: 3 percent
Monadnock: 2 percent
Croghan: 1 percent

The somewhat excessively drained Adams, well drained Duxbury and Monadnock, and moderately well drained Croghan soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Adams, Duxbury, and Monadnock soils occupy similar positions, but Adams soils are sandy; Duxbury and Monadnock soils are loamy over sandy or gravelly; and Monadnock soils are underlain by till. Croghan soils are on small depressions or drainageways, and are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Colton, very bouldery: no
Hydrologic group:
    Colton, very bouldery: A

Soil Properties and Qualities

Colton, very bouldery
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Surface fragment cover: very bouldery
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
- 6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
- 21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
- 3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
- 6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
- 13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
- 21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery or extremely stony surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery or extremely stony surface conditions.

- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

CbC—Colton very gravelly loamy sand, 8 to 15 percent slopes, very bouldery

Setting

This soil is sandy and gravelly, very deep, strongly sloping, and excessively drained. It is on shoulders and backslopes of kame terraces and outwash plains in the Adirondack Upland. Areas range from 3 to 160 acres in size.

Map Unit Composition

Major Components
Colton, very bouldery: 85 percent

Inclusions
Adams: 5 percent
Duxbury: 4 percent
Monadnock: 3 percent
Unnamed: 3 percent

The somewhat excessively drained Adams, and well drained Duxbury and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Adams, Duxbury, and Monadnock soils occupy similar positions, but Adams soils are sandy; Duxbury and Monadnock soils are loamy over sandy or gravelly; and Monadnock soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s

Hydric soil rating:
Colton, very bouldery: no
Hydrologic group:
Colton, very bouldery: A

Soil Properties and Qualities

Colton, very bouldery
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Surface fragment cover: very bouldery
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.

- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery or extremely stony surface conditions.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

CbD—Colton very gravelly loamy sand, 15 to 35 percent slopes, very bouldery

Setting

This soil is sandy and gravelly, very deep, moderately steep and steep, and excessively drained. It is on backslopes of kame terraces and outwash plains in the Adirondack Upland. Areas range from 5 to 75 acres in size.

Map Unit Composition

Major Components
Colton, very bouldery: 85 percent

Inclusions
Adams: 5 percent
Duxbury: 4 percent
Monadnock: 3 percent
Unnamed: 3 percent

The somewhat excessively drained Adams, and well drained Duxbury and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Adams, Duxbury, and Monadnock soils occupy similar positions, but Adams soils are sandy; Duxbury and Monadnock soils are loamy over sandy or gravelly; and Monadnock soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Colton, very bouldery: no
Hydrologic group:
Colton, very bouldery: A

Soil Properties and Qualities

Colton, very bouldery
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture

- The slope may restrict the use of most farm equipment.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.

- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

CgB—Cayuga silty clay loam, 3 to 8 percent slopes

Setting

This soil is clayey over loamy, very deep, gently sloping, and moderately well drained. It is on summits and shoulders of drumlinoid ridges in the Champlain Valley. Areas range from 3 to 350 acres in size.

Map Unit Composition

Major Components
Cayuga: 85 percent

Inclusions
Churchville: 5 percent
Vergennes: 4 percent
Amenia: 2 percent
Massena: 2 percent
Unnamed: 2 percent

The somewhat poorly drained Churchville and Massena, Vergennes, and Amenia soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Churchville and Massena soils occupy slightly lower positions, and Massena soils are loamy. Vergennes soils occupy similar positions but are clayey. Amenia soils occupy similar positions but are loamy. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland (fig. 16)
Land capability classification: 2e
Hydric soil rating:
    Cayuga: no
Hydrologic group:
    Cayuga: C/D

Soil Properties and Qualities

Cayuga
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: very high
Landform: drumlinoid ridges
Parent material: not specified

Reaction (pH):
- 0 to 8 inches: moderately acid to neutral (5.6 to 7.3)
- 8 to 14 inches: moderately acid to neutral (5.6 to 7.3)
- 14 to 19 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 19 to 24 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 24 to 28 inches: slightly acid to moderately alkaline (6.1 to 8.4)
- 28 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)

Permeability:
- 0 to 8 inches: moderately slow or moderate (0.2 to 2 inches/hour)
- 8 to 14 inches: moderately slow or moderate (0.2 to 2 inches/hour)
- 14 to 19 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
- 19 to 24 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
- 24 to 28 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
- 28 to 72 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Clods may form if the soil is tilled when wet.
- Controlling traffic during wet periods can minimize soil compaction.

Figure 16.—View of prime and important agricultural areas in the town of Essex. The somewhat poorly drained Kingsbury clay occupies the flat-lying foreground in hayland. The area in strips of alfalfa hay and corn stubble is gently sloping, moderately well drained Cayuga silty clay loam. The ridgetop in pasture and farm woodlot is gently sloping, moderately well drained Amenia fine sandy loam. All three soils have seasonal high water tables that affect management practices.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Limiting construction and operation activities to dry or frozen ground conditions will help overcome limitations of haul roads and log landings caused by clayey soils.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness and clayey soils.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

CgC—Cayuga silty clay loam, 8 to 15 percent slopes

Setting

This soil is clayey over loamy, very deep, strongly sloping, and moderately well drained. It is on backslopes of drumlinoid ridges in the Champlain Valley. Areas range from 3 to 70 acres in size.

Map Unit Composition

Major Components
Cayuga: 85 percent

Inclusions
Churchville: 5 percent
Vergennes: 4 percent
Amenia: 3 percent
Unnamed: 2 percent
Massena: 1 percent

The somewhat poorly drained Churchville and Massena, Vergennes, and Amenia soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Churchville and Massena soils occupy slightly lower positions, and Massena soils are loamy. Vergennes soils occupy similar positions but are clayey. Amenia soils occupy similar positions but are loamy. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
    Cayuga: no
Hydrologic group:
    Cayuga: C/D

Soil Properties and Qualities

Cayuga
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: very high
Landform: drumlinoid ridges
Parent material: not specified
Reaction (pH):
    0 to 8 inches: moderately acid to neutral (5.6 to 7.3)
    8 to 14 inches: moderately acid to neutral (5.6 to 7.3)

14 to 19 inches: moderately acid to slightly alkaline (5.6 to 7.8)
19 to 24 inches: moderately acid to slightly alkaline (5.6 to 7.8)
24 to 28 inches: slightly acid to moderately alkaline (6.1 to 8.4)
28 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)

Permeability:

0 to 8 inches: moderately slow or moderate (0.2 to 2 inches/hour)
8 to 14 inches: moderately slow or moderate (0.2 to 2 inches/hour)
14 to 19 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
19 to 24 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
24 to 28 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
28 to 72 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)

Use and Management

Cropland

- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Clods may form if the soil is tilled when wet.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Limiting construction and operation activities to dry or frozen ground conditions will help overcome limitations of haul roads and log landings caused by clayey soils.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness and clayey soils.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by

seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

ChB—Champlain loamy sand, 3 to 8 percent slopes

Setting

This soil is sandy, very deep, gently sloping, and somewhat excessively drained. It is on summits and shoulders of deltas, outwash plains, and stream terraces in the Adirondack Upland. Areas range from 3 to 210 acres in size.

Map Unit Composition

Major Components
Champlain: 85 percent

Inclusions
Mooers: 5 percent
Adams: 4 percent

Colton: 3 percent
Fernlake: 2 percent
Nicholville: 1 percent

The moderately well drained Mooers and Nicholville, Adams, excessively drained Colton, and Fernlake soils may be included in areas of this map unit. Mooers and Nicholville soils occupy slightly lower positions, and Nicholville soils are silty and have a spodic horizon. Adams, Colton, and Fernlake soils occupy similar positions, but all have a spodic horizon; Colton soils are sandy and gravelly; and Fernlake soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Champlain: no
Hydrologic group:
  Champlain: A

Soil Properties and Qualities

Champlain
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: proglacial deltas, proglacial outwash plains, proglacial stream terraces
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 7 inches: strongly acid to slightly acid (5.1 to 6.5)
  7 to 10 inches: strongly acid to slightly acid (5.1 to 6.5)
  10 to 16 inches: strongly acid to slightly acid (5.1 to 6.5)
  16 to 24 inches: strongly acid to slightly acid (5.1 to 6.5)
  24 to 35 inches: moderately acid to neutral (5.6 to 7.3)
  35 to 50 inches: moderately acid to neutral (5.6 to 7.3)
  50 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
  0 to 7 inches: rapid (6 to 20 inches/hour)
  7 to 10 inches: rapid (6 to 20 inches/hour)
  10 to 16 inches: rapid (6 to 20 inches/hour)
  16 to 24 inches: rapid (6 to 20 inches/hour)
  24 to 35 inches: rapid (6 to 20 inches/hour)
  35 to 50 inches: rapid (6 to 20 inches/hour)
  50 to 72 inches: rapid (6 to 20 inches/hour)

Use and Management

Cropland
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.

- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

ChC—Champlain loamy sand, 8 to 15 percent slopes

Setting

This soil is sandy, very deep, strongly sloping, and somewhat excessively drained. It is on shoulders and backslopes of deltas, outwash plains, and stream terraces in the Adirondack Upland. Areas range from 3 to 145 acres in size.

Map Unit Composition

Major Components
Champlain: 85 percent

Inclusions
Mooers: 5 percent

Adams: 4 percent
Colton: 3 percent
Fernlake: 2 percent
Nicholville: 1 percent

The moderately well drained Mooers and Nicholville, Adams, excessively drained Colton, and Fernlake soils may be included in areas of this map unit. Mooers and Nicholville soils occupy slightly lower positions, and Nicholville soils are silty and have a spodic horizon. Adams, Colton, and Fernlake soils occupy similar positions, but all have a spodic horizon, Colton soils are sandy and gravelly, and Fernlake soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
    Champlain: no
Hydrologic group:
    Champlain: A

Soil Properties and Qualities

Champlain
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: proglacial deltas, proglacial outwash plains, proglacial stream terraces
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
    0 to 7 inches: strongly acid to slightly acid (5.1 to 6.5)
    7 to 10 inches: strongly acid to slightly acid (5.1 to 6.5)
    10 to 16 inches: strongly acid to slightly acid (5.1 to 6.5)
    16 to 24 inches: strongly acid to slightly acid (5.1 to 6.5)
    24 to 35 inches: moderately acid to neutral (5.6 to 7.3)
    35 to 50 inches: moderately acid to neutral (5.6 to 7.3)
    50 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
    0 to 7 inches: rapid (6 to 20 inches/hour)
    7 to 10 inches: rapid (6 to 20 inches/hour)
    10 to 16 inches: rapid (6 to 20 inches/hour)
    16 to 24 inches: rapid (6 to 20 inches/hour)
    24 to 35 inches: rapid (6 to 20 inches/hour)
    35 to 50 inches: rapid (6 to 20 inches/hour)
    50 to 72 inches: rapid (6 to 20 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

ChD—Champlain loamy sand, 15 to 25 percent slopes

Setting

This soil is sandy, very deep, moderately steep, and somewhat excessively drained. It is on backslopes of deltas, outwash plains, and stream terraces in the Adirondack Upland. Areas range from 3 to 145 acres in size.

Map Unit Composition

Major Components
Champlain: 85 percent

Inclusions
Adams: 4 percent
Colton: 4 percent
Fernlake: 3 percent
Nicholville: 2 percent
Monadnock: 1 percent
Mooers: 1 percent

The Adams, excessively drained Colton, Fernlake, well drained Monadnock, and moderately well drained Mooers and Nicholville soils may be included in areas of this map unit. Adams, Colton, Fernlake, and Monadnock soils occupy similar positions, but all have a spodic horizon; Colton soils are sandy and gravelly; Fernlake and Monadnock soils are underlain by till; and Monadnock soils are loamy over sandy or gravelly. Mooers and Nicholville soils are on drainageways, and Nicholville soils are silty and have a spodic horizon. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Champlain: no
Hydrologic group:
  Champlain: A

Soil Properties and Qualities

Champlain
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: proglacial deltas, proglacial outwash plains, proglacial stream terraces
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 7 inches: strongly acid to slightly acid (5.1 to 6.5)
  7 to 10 inches: strongly acid to slightly acid (5.1 to 6.5)
  10 to 16 inches: strongly acid to slightly acid (5.1 to 6.5)
  16 to 24 inches: strongly acid to slightly acid (5.1 to 6.5)
  24 to 35 inches: moderately acid to neutral (5.6 to 7.3)
  35 to 50 inches: moderately acid to neutral (5.6 to 7.3)
  50 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
  0 to 7 inches: rapid (6 to 20 inches/hour)
  7 to 10 inches: rapid (6 to 20 inches/hour)
  10 to 16 inches: rapid (6 to 20 inches/hour)
  16 to 24 inches: rapid (6 to 20 inches/hour)

24 to 35 inches: rapid (6 to 20 inches/hour)
35 to 50 inches: rapid (6 to 20 inches/hour)
50 to 72 inches: rapid (6 to 20 inches/hour)

Use and Management

Cropland

- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The excessive rate of fluid movement through these soils limits the proper treatment

of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

ChE—Champlain loamy sand, 25 to 45 percent slopes

Setting

This soil is sandy, very deep, very steep, and somewhat excessively drained. It is on backslopes of deltas, outwash plains, and stream terraces in the Adirondack Upland. Areas range from 3 to 95 acres in size.

Map Unit Composition

Major Components
Champlain: 85 percent

Inclusions
Adams: 4 percent
Colton: 4 percent
Fernlake: 3 percent
Monadnock: 2 percent
Nicholville: 2 percent

The Adams, excessively drained Colton, Fernlake, well drained Monadnock, and moderately well drained Nicholville soils may be included in areas of this map unit. Adams, Colton, Fernlake, and Monadnock soils occupy similar positions, but all have a spodic horizon; Colton soils are sandy and gravelly; Fernlake and Monadnock soils are underlain by till; and Monadnock soils have a loamy surface and subsoil. Nicholville soils are on drainageways and are silty and have a spodic horizon. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6e
Hydric soil rating:
  Champlain: no
Hydrologic group:
  Champlain: A

Soil Properties and Qualities

Champlain
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low

Shrink-swell potential: low
Surface runoff potential: low
Landform: proglacial deltas, proglacial outwash plains, proglacial stream terraces
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
 0 to 7 inches: strongly acid to slightly acid (5.1 to 6.5)
 7 to 10 inches: strongly acid to slightly acid (5.1 to 6.5)
 10 to 16 inches: strongly acid to slightly acid (5.1 to 6.5)
 16 to 24 inches: strongly acid to slightly acid (5.1 to 6.5)
 24 to 35 inches: moderately acid to neutral (5.6 to 7.3)
 35 to 50 inches: moderately acid to neutral (5.6 to 7.3)
 50 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
 0 to 7 inches: rapid (6 to 20 inches/hour)
 7 to 10 inches: rapid (6 to 20 inches/hour)
 10 to 16 inches: rapid (6 to 20 inches/hour)
 16 to 24 inches: rapid (6 to 20 inches/hour)
 24 to 35 inches: rapid (6 to 20 inches/hour)
 35 to 50 inches: rapid (6 to 20 inches/hour)
 50 to 72 inches: rapid (6 to 20 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.

• Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

• The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

• The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
• Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
• Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

• The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

CkA—Charles silt loam, 0 to 2 percent slopes

Setting

This soil is silty, very deep, nearly level, and poorly drained. It is on flood plains in the Adirondack Upland. Areas range from 3 to 50 acres in size.

Map Unit Composition

Major Components
Charles: 85 percent

Inclusions
Cornish: 5 percent
Burnt Vly: 3 percent
Medomak: 3 percent
Rumney: 3 percent
Fluvaquents-Udifluvents: 1 percent

The somewhat poorly drained Cornish, very poorly drained Burnt Vly and Medomak, Rumney, and somewhat poorly and well drained Fluvaquents-Udifluvents may be included in areas of this map unit. Cornish soils occupy slightly higher positions. Burnt Vly and Medomak soils occupy lower positions on the flood plain, and Burnt Vly soils are mucky over sandy. Rumney soils occupy similar positions but are loamy. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 4w
Hydric soil rating:
    Charles: yes
Hydrologic group:
    Charles: A/D

Soil Properties and Qualities

Charles

Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
  Flooding: frequent
  Available water capacity: high
  Potential frost action: high
  Shrink-swell potential: low
  Surface runoff potential: very high
  Landform: flood plains
  Parent material: silty alluvium derived from gneiss
Reaction (pH):
  0 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 16 inches: extremely acid to slightly acid (3.5 to 6.5)
  16 to 28 inches: extremely acid to slightly acid (3.5 to 6.5)
  28 to 38 inches: extremely acid to slightly acid (3.5 to 6.5)
  38 to 46 inches: extremely acid to slightly acid (3.5 to 6.5)
  46 to 52 inches: extremely acid to slightly acid (3.5 to 6.5)
  52 to 72 inches: extremely acid to slightly acid (3.5 to 6.5)
Permeability:
  0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 16 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  16 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  28 to 38 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  38 to 46 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  46 to 52 inches: moderate to rapid (0.6 to 20 inches/hour)
  52 to 72 inches: moderate to rapid (0.6 to 20 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

- These soils are poorly suited to cultivated crops due to the seasonal high water table.
- Flooding may delay planting or damage crops in some years.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction of haul roads in frequently flooded areas is recommended.
- Avoiding construction of log landings on frequently flooded soils is recommended.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: In the CkA map unit has an A horizon that is thicker than the range of the Charles series. This should not significantly affect use and management on a local basis for most purposes.

ClB—Charlton gravelly fine sandy loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and well drained. It is on summits and shoulders of glaciated hills in the Champlain Valley. Areas range from 5 to 185 acres in size.

Map Unit Composition

Major Components
Charlton: 85 percent

Inclusions
Georgia: 5 percent
Unnamed: 4 percent
Massena: 3 percent
Pittsfield: 2 percent
Chatfield: 1 percent

The moderately well drained Georgia, somewhat poorly drained Massena, Pittsfield, and Chatfield soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Georgia soils occupy slightly lower positions. Massena soils are on small depressions or drainageways. Pittsfield and Chatfield soils occupy similar positions, but Pittsfield soils have a higher pH, and Chatfield soils are moderately deep to bedrock. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
Charlton: no
Hydrologic group:
Charlton: A

Soil Properties and Qualities

Charlton
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
0 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
5 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)

11 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
19 to 36 inches: very strongly acid to moderately acid (4.5 to 6.0)
36 to 45 inches: very strongly acid to moderately acid (4.5 to 6.0)
45 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)

Permeability:
0 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
36 to 45 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
45 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- These soils have no restrictions for commercial woodland use.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

ClC—Charlton gravelly fine sandy loam, 8 to 15 percent slopes

Setting

This soil is loamy, very deep, strongly sloping, and well drained. It is on shoulders and backslopes of glaciated hills in the Champlain Valley. Areas range from 3 to 90 acres in size.

Map Unit Composition

Major Components
Charlton: 85 percent

Inclusions
Georgia: 5 percent
Pittsfield: 4 percent
Unnamed: 4 percent
Chatfield: 1 percent
Massena: 1 percent

The moderately well drained Georgia, somewhat poorly drained Massena, Pittsfield, and Chatfield soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Georgia soils occupy slightly lower positions. Massena soils are on small depressions or drainageways. Pittsfield and Chatfield soils occupy similar positions, but Pittsfield soils have a higher pH, and Chatfield soils are moderately deep to bedrock. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
    Charlton: no
Hydrologic group:
    Charlton: A

Soil Properties and Qualities

Charlton
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
    0 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
    5 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
    11 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
    19 to 36 inches: very strongly acid to moderately acid (4.5 to 6.0)
    36 to 45 inches: very strongly acid to moderately acid (4.5 to 6.0)
    45 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
    0 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    11 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    19 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    36 to 45 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    45 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

ClD—Charlton gravelly fine sandy loam, 15 to 25 percent slopes

Setting

This soil is loamy, very deep, moderately steep, and well drained. It is on shoulders and backslopes of glaciated hills in the Champlain Valley. Areas range from 10 to 50 acres in size.

Map Unit Composition

Major Components
Charlton: 85 percent

Inclusions
Pittsfield: 6 percent
Unnamed: 5 percent
Chatfield: 3 percent
Georgia: 1 percent

The Pittsfield, Chatfield, and moderately well drained Georgia soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Pittsfield and Chatfield soils occupy similar positions, but Pittsfield soils have a higher pH, and Chatfield soils are moderately deep to bedrock. Georgia soils are on drainageways. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Charlton: no
Hydrologic group:
  Charlton: A

Soil Properties and Qualities

Charlton
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: medium
Landform: glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
  5 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
  11 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
  19 to 36 inches: very strongly acid to moderately acid (4.5 to 6.0)
  36 to 45 inches: very strongly acid to moderately acid (4.5 to 6.0)
  45 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
  0 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  36 to 45 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  45 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.

- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

CnC—Charlton-Chatfield complex, 8 to 15 percent slopes, rocky, very stony

Setting

These soils are loamy, very deep and moderately deep, strongly sloping, and well drained. They are on shoulders and backslopes of glaciated hills in the Champlain Valley. Areas range from 3 to 45 acres in size.

Map Unit Composition

Major Components
Charlton, rocky, very stony: 45 percent
Chatfield, rocky, very stony: 30 percent

Inclusions
Hollis: 8 percent
Unnamed: 7 percent
Pittsfield: 5 percent
Georgia: 2 percent
Cayuga: 1 percent
Massena: 1 percent
Rock Outcrop: 1 percent

The Hollis, Pittsfield, moderately well drained Georgia and Cayuga, and somewhat poorly drained Massena soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Hollis and Pittsfield occupy similar positions, but Hollis soils are shallow to bedrock, and Pittsfield soils have a higher pH. Georgia and Cayuga soils occupy slightly lower positions, and Cayuga soils are clayey over loamy. Massena soils are on small depressions or drainageways. Included areas make up about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Charlton, rocky, very stony: no
  Chatfield, rocky, very stony: no
Hydrologic group:
  Charlton, rocky, very stony: A
  Chatfield, rocky, very stony: B

Soil Properties and Qualities

Charlton, rocky, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
  5 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
  11 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
  19 to 36 inches: very strongly acid to moderately acid (4.5 to 6.0)
  36 to 45 inches: very strongly acid to moderately acid (4.5 to 6.0)
  45 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
  0 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  36 to 45 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  45 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Chatfield, rocky, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate

Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
 1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
 7 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
 19 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
 27 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
 32 inches, bedrock
Permeability:
 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
 1 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 7 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 19 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 27 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 32 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields

- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

CnD—Charlton-Chatfield complex, 15 to 35 percent slopes, rocky, very stony

Setting

These soils are loamy, very deep and moderately deep, moderately steep and steep, and well drained. They are on backslopes of glaciated hills in the Champlain Valley. Areas range from 3 to 240 acres in size.

Map Unit Composition

Major Components
Charlton, rocky, very stony: 45 percent
Chatfield, rocky, very stony: 30 percent

Inclusions
Hollis: 9 percent
Unnamed: 7 percent
Pittsfield: 6 percent
Cayuga: 1 percent
Georgia: 1 percent
Rock Outcrop: 1 percent

The Hollis, Pittsfield, and moderately well drained Georgia and Cayuga soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Hollis and Pittsfield occupy similar positions, but Hollis soils are shallow to bedrock, and Pittsfield soils have a higher pH. Georgia and Cayuga soils occupy slightly lower positions, and Cayuga soils are clayey over loamy. Included areas make up about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland

Land capability classification: 7s
Hydric soil rating:
  Charlton, rocky, very stony: no
  Chatfield, rocky, very stony: no
Hydrologic group:
  Charlton, rocky, very stony: A
  Chatfield, rocky, very stony: B

Soil Properties and Qualities

Charlton, rocky, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
  5 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
  11 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
  19 to 36 inches: very strongly acid to moderately acid (4.5 to 6.0)
  36 to 45 inches: very strongly acid to moderately acid (4.5 to 6.0)
  45 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
  0 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  36 to 45 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  45 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Chatfield, rocky, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
  7 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
  19 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)

27 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
32 inches, bedrock

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of surface boulders and stones (fig. 17).

Pasture

- The slope may restrict the use of most farm equipment.
- Avoiding overgrazing can reduce the hazard of erosion.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Figure 17.—A road cut north of Wadhams in the town of Westport illustrates the anorthositic gneiss bedrock contact in Charlton-Chatfield map units. The moderately deep Chatfield soils are left of the tile spade, and the very deep Charlton soils are right of the spade. This map unit is an excellent timber producer, especially for White Pine, Red Pine, Northern Red Oak, and White Ash. Surface stoniness, rock outcrops, and steep slopes make it poor farmland.

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields

- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

CoB—Chatfield-Hollis complex, 3 to 8 percent slopes, very rocky, very stony

Setting

These soils are loamy, moderately deep and shallow, gently sloping, and well drained. They are on summits and shoulders of glaciated hills in the Champlain Valley. Areas range from 3 to 105 acres in size.

Map Unit Composition

Major Components
Chatfield, very rocky, very stony: 45 percent
Hollis, very rocky, very stony: 30 percent

Inclusions
Charlton: 5 percent
Pittsfield: 5 percent
Rock Outcrop: 5 percent
Unnamed: 4 percent
Cayuga: 3 percent
Georgia: 3 percent

The Charlton, Pittsfield, and moderately well drained Georgia and Cayuga soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Charlton and Pittsfield soils occupy similar positions, but they are both very deep, and Pittsfield soils have a higher pH. Georgia and Cayuga soils occupy slightly lower positions, are both very deep, and Cayuga soils are clayey over loamy. Included areas make up about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Chatfield, very rocky, very stony: no
  Hollis, very rocky, very stony: no
Hydrologic group:
  Chatfield, very rocky, very stony: B
  Hollis, very rocky, very stony: D

Soil Properties and Qualities

Chatfield, very rocky, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)

7 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
19 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
27 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
32 inches, bedrock

Hollis, very rocky, very stony
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 6 inches: very strongly acid to moderately acid (4.5 to 6.0)
6 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
13 inches, bedrock

Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the rock outcrops.

Pasture
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations due to moderately deep and shallow soils.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

CoC—Chatfield-Hollis complex, 8 to 15 percent slopes, very rocky, very stony

Setting

These soils are loamy, moderately deep and shallow, strongly sloping, and well drained. They are on shoulders and backslopes of glaciated hills in the Champlain Valley. Areas range from 3 to 205 acres in size.

Map Unit Composition

Major Components
Chatfield, very rocky, very stony: 45 percent
Hollis, very rocky, very stony: 30 percent

Inclusions
Rock Outcrop: 6 percent
Charlton: 5 percent
Pittsfield: 5 percent
Unnamed: 4 percent
Georgia: 3 percent
Cayuga: 2 percent

The Charlton, Pittsfield, and moderately well drained Georgia and Cayuga soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Charlton and Pittsfield soils occupy similar positions, but they are both

very deep, and Pittsfield soils have a higher pH. Georgia and Cayuga soils occupy slightly lower positions, are both very deep, and Cayuga soils are clayey over loamy. Included areas make up about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Chatfield, very rocky, very stony: no
  Hollis, very rocky, very stony: no
Hydrologic group:
  Chatfield, very rocky, very stony: B
  Hollis, very rocky, very stony: D

Soil Properties and Qualities

Chatfield, very rocky, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
  7 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
  19 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
  27 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
  32 inches, bedrock
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  27 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  32 inches, bedrock

Hollis, very rocky, very stony
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock

Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 6 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 6 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 13 inches, bedrock

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 inches, bedrock

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of the rock outcrops.

Pasture

- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland

- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep and shallow soils.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the

natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

CoD—Chatfield-Hollis complex, 15 to 35 percent slopes, very rocky, very stony

Setting

These soils are loamy, moderately deep and shallow, moderately steep and steep, and well drained. They are on backslopes of glaciated hills in the Champlain Valley. Areas range from 3 to 220 acres in size.

Map Unit Composition

Major Components
Chatfield, very rocky, very stony: 45 percent
Hollis, very rocky, very stony: 30 percent

Inclusions
Rock Outcrop: 8 percent
Unnamed: 5 percent
Charlton: 4 percent
Pittsfield: 4 percent
Cayuga: 2 percent
Georgia: 2 percent

The Charlton, Pittsfield, and moderately well drained Georgia and Cayuga soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Charlton and Pittsfield soils occupy similar positions, but they are both very deep, and Pittsfield soils have a higher pH. Georgia and Cayuga soils occupy slightly lower positions, are both very deep, and Cayuga soils are clayey over loamy. Included areas make up about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Chatfield, very rocky, very stony: no
  Hollis, very rocky, very stony: no
Hydrologic group:
  Chatfield, very rocky, very stony: B
  Hollis, very rocky, very stony: D

Soil Properties and Qualities

Chatfield, very rocky, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 7 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 19 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 27 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 32 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 19 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 32 inches, bedrock

Hollis, very rocky, very stony
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 6 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 6 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the rock outcrops.

Pasture
- The slope may restrict the use of most farm equipment.

- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by moderately deep and shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep and shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the

effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

CoF—Chatfield-Hollis complex, 35 to 60 percent slopes, very rocky, very stony

Setting

These soils are loamy, moderately deep and shallow, very steep, and well drained. They are on backslopes of glaciated hills in the Champlain Valley. Areas range from 5 to 225 acres in size.

Map Unit Composition

Major Components
Chatfield, very rocky, very stony: 45 percent
Hollis, very rocky, very stony: 30 percent

Inclusions
Rock Outcrop: 9 percent
Unnamed: 8 percent
Charlton: 4 percent
Pittsfield: 4 percent

The Charlton and Pittsfield soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Charlton and Pittsfield soils occupy similar positions, but they are both very deep, and Pittsfield soils have a higher pH. Included areas make up about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
Chatfield, very rocky, very stony: no
Hollis, very rocky, very stony: no
Hydrologic group:
Chatfield, very rocky, very stony: B
Hollis, very rocky, very stony: D

Soil Properties and Qualities

Chatfield, very rocky, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none

Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
  7 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
  19 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
  27 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
  32 inches, bedrock
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  27 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  32 inches, bedrock

Hollis, very rocky, very stony
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 6 inches: very strongly acid to moderately acid (4.5 to 6.0)
  6 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
  13 inches, bedrock
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope, the erosion hazard, and the rock outcrops.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.

- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by moderately deep and shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep and shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

CpB—Churchville loam, 2 to 8 percent slopes

Setting

This soil is clayey over loamy, very deep, gently sloping, and somewhat poorly drained. It is on footslopes of drumlinoid ridges in the Champlain Valley. Areas range from 3 to 35 acres in size.

Map Unit Composition

Major Components
Churchville: 85 percent

Inclusions
Cayuga: 5 percent
Kingsbury: 4 percent
Massena: 3 percent
Unnamed: 2 percent
Covington: 1 percent

The moderately well drained Cayuga, Kingsbury, Massena, and poorly drained Covington soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Cayuga soils occupy slightly higher positions. Kingsbury and Massena soils occupy similar positions, but Kingsbury soils are clayey, and Massena soils are loamy. Covington soils are on small depressions and drainageways, and are clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
Churchville: no
Hydrologic group:
Churchville: C/D

Soil Properties and Qualities

Churchville
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
Water table kind: perched
Flooding: none
Available water capacity: low to moderate
Potential frost action: high
Shrink-swell potential: very high
Surface runoff potential: very high
Landform: drumlinoid ridges
Parent material: clayey glaciolacustrine deposits derived from igneous and sedimentary rock over loamy lodgment till derived from limestone
Reaction (pH):
0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
9 to 13 inches: slightly acid to slightly alkaline (6.1 to 7.8)
13 to 25 inches: slightly acid to slightly alkaline (6.1 to 7.8)

25 to 35 inches: slightly alkaline to strongly alkaline (7.4 to 9.0)
35 to 48 inches: slightly alkaline to strongly alkaline (7.4 to 9.0)
48 to 72 inches: slightly alkaline to strongly alkaline (7.4 to 9.0)

Permeability:
0 to 9 inches: moderately slow or moderate (0.2 to 2 inches/hour)
9 to 13 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
13 to 25 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
25 to 35 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
35 to 48 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
48 to 72 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Limiting construction and operation activities to dry or frozen ground conditions will help overcome limitations of haul roads and log landings caused by clayey soils.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness and clayey soils.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

CqA—Claverack loamy fine sand, 0 to 3 percent slopes

Setting

This soil is sandy over clayey, very deep, nearly level, and moderately well drained. It is on summits and shoulders of lake plains in the Champlain Valley. Areas range from 4 to 30 acres in size.

Map Unit Composition

Major Components
Claverack: 85 percent

Inclusions
Cosad: 5 percent
Elmridge: 4 percent
Deerfield: 2 percent
Unnamed: 2 percent

Vergennes: 1 percent
Windsor: 1 percent

The somewhat poorly drained Cosad, Elmridge, Deerfield, Vergennes, and excessively drained Windsor soils may be included in areas of this map unit. Also included are small areas of well drained sandy over clayey soils. Cosad soils occupy slightly lower positions. Elmridge, Deerfield, and Vergennes soils occupy similar positions, but Elmridge soils are loamy over clayey; Deerfield soils are sandy; and Vergennes soils are clayey. Windsor soils occupy higher positions, and are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Claverack: no
Hydrologic group:
  Claverack: C/D

Soil Properties and Qualities

Claverack
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to strongly contrasting textural stratification
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: very low to low
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: low
Landform: lake plains
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock over clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 12 inches: strongly acid to neutral (5.1 to 7.3)
  12 to 16 inches: strongly acid to neutral (5.1 to 7.3)
  16 to 22 inches: strongly acid to neutral (5.1 to 7.3)
  22 to 26 inches: strongly acid to neutral (5.1 to 7.3)
  26 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 12 inches: moderately rapid or rapid (2 to 20 inches/hour)
  12 to 16 inches: rapid (6 to 20 inches/hour)
  16 to 22 inches: rapid (6 to 20 inches/hour)
  22 to 26 inches: rapid (6 to 20 inches/hour)
  26 to 72 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.

- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

CqB—Claverack loamy fine sand, 3 to 8 percent slopes

Setting

This soil is sandy over clayey, very deep, gently sloping, and moderately well drained. It is on summits and shoulders of lake plains in the Champlain Valley. Areas range from 3 to 65 acres in size.

Map Unit Composition

Major Components
Claverack: 85 percent

Inclusions
Cosad: 3 percent
Deerfield: 3 percent
Elmridge: 3 percent
Unnamed: 2 percent
Vergennes: 2 percent
Windsor: 2 percent

The somewhat poorly drained Cosad, Elmridge, Deerfield, Vergennes, and excessively drained Windsor soils may be included in areas of this map unit. Also included are small areas of well drained sandy over clayey soils. Cosad soils occupy slightly lower positions. Elmridge, Deerfield, and Vergennes soils occupy similar positions, but Elmridge soils are loamy over clayey; Deerfield soils are sandy; and Vergennes soils are clayey. Windsor soils occupy higher positions, and are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
    Claverack: no
Hydrologic group:
    Claverack: C/D

Soil Properties and Qualities

Claverack
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to strongly contrasting textural stratification
Depth to seasonal high water table: 18 to 30 inches
Water table kind: perched
Flooding: none
Available water capacity: very low to low
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: medium
Landform: lake plains
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock over clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 12 inches: strongly acid to neutral (5.1 to 7.3)
12 to 16 inches: strongly acid to neutral (5.1 to 7.3)
16 to 22 inches: strongly acid to neutral (5.1 to 7.3)
22 to 26 inches: strongly acid to neutral (5.1 to 7.3)
26 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
0 to 12 inches: moderately rapid or rapid (2 to 20 inches/hour)
12 to 16 inches: rapid (6 to 20 inches/hour)
16 to 22 inches: rapid (6 to 20 inches/hour)
22 to 26 inches: rapid (6 to 20 inches/hour)
26 to 72 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.

- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

CrB—Collamer silt loam, 2 to 8 percent slopes

Setting

This soil is silty and clayey, very deep, gently sloping, and moderately well drained. It is on summits and shoulders of lake plains in the Champlain Valley. Areas range from 3 to 70 acres in size.

Map Unit Composition

Major Components
Collamer: 85 percent

Inclusions
Dunkirk: 5 percent
Niagara: 3 percent
Cayuga: 2 percent
Hartland: 2 percent
Unnamed: 2 percent
Factoryville: 1 percent

The well drained Dunkirk, Hartland, and Factoryville, somewhat poorly drained Niagara, and Cayuga soils may be included in areas of this map unit. Also included are areas that have a slightly higher clay content. Dunkirk, Hartland, and Factoryville soils occupy slightly higher positions; Hartland soils are silty; and Factoryville soils are sandy. Niagara soils occupy slightly lower positions. Cayuga soils occupy similar positions, but are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
    Collamer: no
Hydrologic group:
    Collamer: C/D

Soil Properties and Qualities

Collamer
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: low

Landform: lake plains
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 11 inches: strongly acid to neutral (5.1 to 7.3)
11 to 16 inches: strongly acid to neutral (5.1 to 7.3)
16 to 25 inches: moderately acid to slightly alkaline (5.6 to 7.8)
25 to 35 inches: slightly acid to moderately alkaline (6.1 to 8.4)
35 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
0 to 11 inches: moderately slow or moderate (0.2 to 2 inches/hour)
11 to 16 inches: moderately slow or moderate (0.2 to 2 inches/hour)
16 to 25 inches: slow to moderate (0.06 to 2 inches/hour)
25 to 35 inches: slow to moderate (0.06 to 2 inches/hour)
35 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland

- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

Correlation Note: The CrB map unit has a B horizon that has a color value darker than typical for the range of the Collamer series. This should not significantly affect use and management on a local basis for most purposes.

CsA—Colton very gravelly loamy sand, 0 to 3 percent slopes

Setting

This soil is sandy and gravelly, very deep, nearly level, and excessively drained. It is on summits of kame terraces and outwash plains in the Adirondack Upland. Areas range from 4 to 345 acres in size.

Map Unit Composition

Major Components
Colton: 85 percent

Inclusions
Adams: 5 percent
Duxbury: 3 percent

Unnamed: 3 percent
Croghan: 2 percent
Monadnock: 2 percent

The somewhat excessively drained Adams, well drained Duxbury and Monadnock, and moderately well drained Croghan soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Adams, Duxbury, and Monadnock soils occupy similar positions, but Adams soils are sandy, Duxbury and Monadnock soils are loamy over sandy or gravelly, and Monadnock soils are underlain by till. Croghan soils are in small depressions or along drainageways, and are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Colton: no
Hydrologic group:
  Colton: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
  6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
  21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
  3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
  6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
  13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
  21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

CsB—Colton very gravelly loamy sand, 3 to 8 percent slopes

Setting

This soil is sandy and gravelly, very deep, gently sloping, and excessively drained. It is on summits and shoulders of kame terraces and outwash plains in the Adirondack Upland. Areas range from 3 to 340 acres in size.

Map Unit Composition

Major Components
Colton: 85 percent

Inclusions
Adams: 5 percent
Duxbury: 4 percent
Unnamed: 3 percent
Monadnock: 2 percent
Croghan: 1 percent

The somewhat excessively drained Adams, well drained Duxbury and Monadnock, and moderately well drained Croghan soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Adams, Duxbury, and Monadnock

soils occupy similar positions, but Adams soils are sandy; Duxbury and Monadnock soils are loamy over sandy or gravelly; and Monadnock soils are underlain by till. Croghan soils are on small depressions or drainageways, and are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Colton: no
Hydrologic group:
  Colton: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
  6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
  21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
  3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
  6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
  13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
  21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

CsC—Colton very gravelly loamy sand, 8 to 15 percent slopes

Setting

This soil is sandy and gravelly, very deep, strongly sloping, and excessively drained. It is on shoulders and backslopes of kame terraces and outwash plains in the Adirondack Upland. Areas range from 3 to 120 acres in size.

Map Unit Composition

Major Components
Colton: 85 percent

Inclusions
Adams: 5 percent
Duxbury: 4 percent
Monadnock: 3 percent
Unnamed: 3 percent

The somewhat excessively drained Adams, and well drained Duxbury and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Adams, Duxbury, and Monadnock soils occupy similar positions, but Adams soils are sandy; Duxbury and Monadnock soils are loamy over sandy or gravelly; and Monadnock soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Colton: no
Hydrologic group:
  Colton: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
  6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
  21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
  3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
  6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
  13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
  21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

CsD—Colton very gravelly loamy sand, 15 to 25 percent slopes

Setting

This soil is sandy and gravelly, very deep, moderately steep, and excessively drained. It is on backslopes of kame terraces and outwash plains in the Adirondack Upland. Areas range from 3 to 50 acres in size.

Map Unit Composition

Major Components
Colton: 85 percent

Inclusions
Adams: 5 percent
Duxbury: 4 percent
Monadnock: 3 percent
Unnamed: 3 percent

The somewhat excessively drained Adams, and well drained Duxbury and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Adams, Duxbury, and Monadnock soils occupy similar positions, but Adams soils are sandy; Duxbury and Monadnock soils are loamy over

sandy or gravelly; and Monadnock soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7e
Hydric soil rating:
Colton: no
Hydrologic group:
Colton: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage

structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

CsE—Colton very gravelly loamy sand, 25 to 45 percent slopes

Setting

This soil is sandy and gravelly, very deep, very steep, and excessively drained. It is on backslopes of kame terraces and outwash plains in the Adirondack Upland. Areas range from 3 to 70 acres in size.

Map Unit Composition

Major Components
Colton: 85 percent

Inclusions
Adams: 5 percent
Duxbury: 4 percent
Monadnock: 3 percent
Unnamed: 3 percent

The somewhat excessively drained Adams, and well drained Duxbury and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Adams, Duxbury, and Monadnock soils occupy similar positions, but Adams soils are sandy; Duxbury and Monadnock soils are loamy over sandy or gravelly; and Monadnock soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7e
Hydric soil rating:
Colton: no
Hydrologic group:
Colton: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: kame terraces, outwash plains
Parent material: gravelly outwash derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
6 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
3 to 6 inches: rapid or very rapid (6 to 100 inches/hour)
6 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

CtA—Cornish silt loam, 0 to 2 percent slopes

Setting

This soil is silty, very deep, nearly level, and somewhat poorly drained. It is on flood plains in the Adirondack Upland. Areas range from 5 to 55 acres in size.

Map Unit Composition

Major Components
Cornish: 85 percent

Inclusions
Lovewell: 5 percent
Charles: 3 percent
Medomak: 2 percent
Podunk: 2 percent
Rumney: 2 percent
Fluvaquents-Udifluvents: 1 percent

The moderately well drained Lovewell and Podunk, poorly drained Charles and Rumney, very poorly drained Medomak, and somewhat poorly drained and well drained Fluvaquents-Udifluvents may be included in areas of this map unit. Lovewell and Podunk soils occupy slightly higher positions, and Podunk soils are loamy. Charles, Medomak, and Rumney soils occupy lower positions on the flood plain, and Rumney soils are loamy. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
    Cornish: no
Hydrologic group:
    Cornish: B/D

Soil Properties and Qualities

Cornish
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: apparent
Flooding: occasional
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: silty alluvium derived from gneiss
Reaction (pH):
    0 to 12 inches: very strongly acid to slightly acid (4.5 to 6.5)
    12 to 21 inches: very strongly acid to slightly acid (4.5 to 6.5)
    21 to 35 inches: very strongly acid to slightly acid (4.5 to 6.5)
    35 to 42 inches: very strongly acid to slightly acid (4.5 to 6.5)
    42 to 48 inches: very strongly acid to slightly acid (4.5 to 6.5)
    48 to 53 inches: very strongly acid to slightly acid (4.5 to 6.5)
    53 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    12 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    21 to 35 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

35 to 42 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
42 to 48 inches: moderate to rapid (0.6 to 20 inches/hour)
48 to 53 inches: moderate to rapid (0.6 to 20 inches/hour)
53 to 72 inches: moderate to rapid (0.6 to 20 inches/hour)

Use and Management

Cropland

- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- Flooding may delay planting or damage crops in some years.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Conducting road construction and harvesting operations during months of low stream flow, and use of riparian buffers will help overcome construction limitations of haul roads caused by occasional flooding.
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Limiting construction of log landings on occasionally flooded soils, and conducting harvesting operations during months when flooding is least likely to occur will help overcome these limitations. Riparian setbacks should be at least 200 feet.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

CuA—Cosad loamy fine sand, 0 to 3 percent slopes

Setting

This soil is sandy over clayey, very deep, nearly level, and somewhat poorly drained. It is on summits and shoulders of lake plains in the Champlain Valley. Areas range from 3 to 85 acres in size.

Map Unit Composition

Major Components
Cosad: 85 percent

Inclusions
Claverack: 4 percent
Stafford: 4 percent
Unnamed: 3 percent
Kingsbury: 2 percent
Elmridge: 1 percent
Gougeville: 1 percent

The moderately well drained Claverack and Elmridge, Stafford, Kingsbury, and poorly drained Gougeville soils may be included in areas of this map unit. Also included are small areas of poorly drained sandy over clayey soils. Claverack and Elmridge soils occupy slightly higher positions, and Elmridge soils are loamy over clayey. Stafford and Kingsbury soils occupy similar positions, but Stafford soils are sandy, and Kingsbury soils are clayey. Gougeville soils are on small depressions and are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
Cosad: no
Hydrologic group:
Cosad: C/D

Soil Properties and Qualities

Cosad
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 40 inches to strongly contrasting textural stratification
Depth to seasonal high water table: 6 to 18 inches
Water table kind: perched
Flooding: none
Available water capacity: very low to low
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: very high
Landform: lake plains
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock over clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 12 inches: strongly acid to slightly acid (5.1 to 6.5)
12 to 18 inches: strongly acid to neutral (5.1 to 7.3)
18 to 23 inches: strongly acid to neutral (5.1 to 7.3)
23 to 25 inches: moderately acid to slightly alkaline (5.6 to 7.8)
25 to 39 inches: neutral or slightly alkaline (6.6 to 7.8)
39 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
0 to 12 inches: moderately rapid or rapid (2 to 20 inches/hour)
12 to 18 inches: rapid (6 to 20 inches/hour)
18 to 23 inches: rapid (6 to 20 inches/hour)
23 to 25 inches: rapid (6 to 20 inches/hour)
25 to 39 inches: very slow or slow (0.001 to 0.2 inches/hour)
39 to 72 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

Cropland

- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture

- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause foundations to shift and basement walls and floors to crack.

Septic Tank Absorption Fields

- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The moderate to slow rate of fluid movement through parts of these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

Correlation Note: The CuA and CuB map units are taxadjuncts to the Cosad series because the pedon qualifies as having a Cambic horizon in the 2BC horizon. The classification of the taxadjunct is Sandy over clayey, mixed, superactive, mesic Aquic Eutrudepts. The classification of Cosad is Sandy over clayey, mixed, superactive, nonacid, mesic Aquic Udorthents. This should not significantly affect use and management on a local basis for most purposes.

CuB—Cosad loamy fine sand, 3 to 8 percent slopes

Setting

This soil is sandy over clayey, very deep, gently sloping, and somewhat poorly drained. It is on summits and shoulders of lake plains in the Champlain Valley. Areas range from 3 to 70 acres in size.

Map Unit Composition

Major Components
Cosad: 85 percent

Inclusions
Claverack: 5 percent
Stafford: 4 percent
Unnamed: 3 percent
Kingsbury: 2 percent
Elmridge: 1 percent

The moderately well drained Claverack and Elmridge, Stafford, and Kingsbury soils may be included in areas of this map unit. Also included are small areas of poorly drained sandy over clayey soils. Claverack and Elmridge soils occupy slightly higher

positions, and Elmridge soils are loamy over clayey. Stafford and Kingsbury soils occupy similar positions, but Stafford soils are sandy; and Kingsbury soils are clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
    Cosad: no
Hydrologic group:
    Cosad: C/D

Soil Properties and Qualities

Cosad
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 40 inches to strongly contrasting textural stratification
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: perched
Flooding: none
Available water capacity: very low to low
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: very high
Landform: lake plains
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock over clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
    0 to 12 inches: strongly acid to slightly acid (5.1 to 6.5)
    12 to 18 inches: strongly acid to neutral (5.1 to 7.3)
    18 to 23 inches: strongly acid to neutral (5.1 to 7.3)
    23 to 25 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    25 to 39 inches: neutral or slightly alkaline (6.6 to 7.8)
    39 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
    0 to 12 inches: moderately rapid or rapid (2 to 20 inches/hour)
    12 to 18 inches: rapid (6 to 20 inches/hour)
    18 to 23 inches: rapid (6 to 20 inches/hour)
    23 to 25 inches: rapid (6 to 20 inches/hour)
    25 to 39 inches: very slow or slow (0.001 to 0.2 inches/hour)
    39 to 72 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

Cropland
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in parts of these soils results in a severely limited capacity to support a load without movement and can cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.

- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The moderate to slow rate of fluid movement through parts of these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

Correlation Note: The CuA and CuB map units are taxadjuncts to the Cosad series because the pedon qualifies as having a Cambic horizon in the 2BC horizon. The classification of the taxadjunct is Sandy over clayey, mixed, superactive, mesic Aquic Eutrudepts. The classification of Cosad is Sandy over clayey, mixed, superactive, nonacid, mesic Aquic Udorthents. This should not significantly affect use and management on a local basis for most purposes.

CvA—Covington clay, 0 to 3 percent slopes

Setting

This soil is clayey, very deep, nearly level, and poorly drained. It is on toeslopes of lake plains in the Champlain Valley. Areas range from 3 to 160 acres in size.

Map Unit Composition

Major Components
Covington: 85 percent

Inclusions
Kingsbury: 5 percent
Livingston: 4 percent
Churchville: 3 percent
Whallonsburg: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Kingsbury and Churchville, and very poorly drained Livingston and Whallonsburg soils may be included in areas of this map unit. Also included are areas of poorly drained soils that have a slightly lower clay content. Kingsbury and Churchville soils occupy slightly higher positions, but Churchville soils are clayey over loamy. Livingston and Whallonsburg soils occupy slightly lower positions, but Whallonsburg soils are mucky over clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland

Land capability classification: 4w
Hydric soil rating:
  Covington: yes
Hydrologic group:
  Covington: D

Soil Properties and Qualities

Covington
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: very high
Surface runoff potential: very high
Landform: lake plains
Parent material: clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
  9 to 19 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  19 to 24 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  24 to 36 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  36 to 72 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
  0 to 9 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
  9 to 19 inches: very slow or slow (0.001 to 0.2 inches/hour)
  19 to 24 inches: very slow or slow (0.001 to 0.2 inches/hour)
  24 to 36 inches: very slow or slow (0.001 to 0.2 inches/hour)
  36 to 72 inches: impermeable or very slow (0 to 0.06 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are poorly suited to cultivated crops caused by the seasonal high water table.
- The root system of some deep-rooted crops may be damaged by frost action.
- Clods may form if the soil is tilled when wet.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.

- Limiting construction activities to dry or frozen ground conditions will help overcome construction limitations of haul roads caused by clayey soils.
- Areas of poorly drained and very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness and clayey soils.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause foundations to shift and basement walls and floors to crack.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The restricted movement of fluids through these soils limits the absorption and proper treatment of the effluent from septic systems. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

CwA—Croghan fine sand, 0 to 3 percent slopes

Setting

This soil is sandy, very deep, nearly level, and moderately well drained. It is on footslopes of deltas, outwash plains, and stream terraces in the Adirondack Upland. Areas range from 3 to 80 acres in size.

Map Unit Composition

Major Components
Croghan: 85 percent

Inclusions
Naumburg: 5 percent
Adams: 3 percent
Mooers: 3 percent
Searsport: 2 percent
Unnamed: 2 percent

The somewhat poorly drained Naumburg, somewhat excessively drained Adams, Mooers, and very poorly drained Searsport soils may be included in areas of this map unit. Also included are small areas of poorly drained sandy soils. Naumburg soils occupy slightly lower positions. Adams soils occupy higher positions. Mooers soils occupy similar positions, but lack a spodic horizon. Searsport soils are on small depressions or drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 2w
Hydric soil rating:
  Croghan: no
Hydrologic group:
  Croghan: A/D

Soil Properties and Qualities

Croghan
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: deltas, outwash plains, stream terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
  8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
  23 to 29 inches: very strongly acid to moderately acid (4.5 to 6.0)

29 to 42 inches: very strongly acid to moderately acid (4.5 to 6.0)
42 to 45 inches: very strongly acid to moderately acid (4.5 to 6.0)
45 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
3 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
23 to 29 inches: moderately rapid to very rapid (2 to 100 inches/hour)
29 to 42 inches: moderately rapid to very rapid (2 to 100 inches/hour)
42 to 45 inches: moderately rapid to very rapid (2 to 100 inches/hour)
45 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland

- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- These soils are well suited to pasture.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Applying gravel base material to log landings during construction and operation will help overcome limitations caused by sandy surfaces.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Maintaining a vegetative cover or spreading slash over exposed soil areas will help overcome harvest equipment operability limitations caused by sandy surfaces.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional

wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.

CwB—Croghan fine sand, 3 to 8 percent slopes

Setting

This soil is sandy, very deep, gently sloping, and moderately well drained. It is on footslopes of deltas, outwash plains, and stream terraces in the Adirondack Upland. Areas range from 3 to 60 acres in size.

Map Unit Composition

Major Components
Croghan: 85 percent

Inclusions
Naumburg: 5 percent
Adams: 3 percent
Mooers: 3 percent
Champlain: 2 percent
Unnamed: 2 percent

The somewhat poorly drained Naumburg, somewhat excessively drained Adams and Champlain, and Mooers soils may be included in areas of this map unit. Also included are small areas of poorly drained sandy soils. Naumburg soils occupy slightly lower positions. Adams and Champlain soils occupy higher positions, and Champlain soils lack a spodic horizon. Mooers soils occupy similar positions, but lack a spodic horizon. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 2w
Hydric soil rating:
 Croghan: no
Hydrologic group:
 Croghan: A/D

Soil Properties and Qualities

Croghan
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
 Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very low
Landform: deltas, outwash plains, stream terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
 1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
 3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
 5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
 8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
 14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
 23 to 29 inches: very strongly acid to moderately acid (4.5 to 6.0)
 29 to 42 inches: very strongly acid to moderately acid (4.5 to 6.0)
 42 to 45 inches: very strongly acid to moderately acid (4.5 to 6.0)
 45 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
 1 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
 3 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
 5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
 8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
 14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
 23 to 29 inches: moderately rapid to very rapid (2 to 100 inches/hour)
 29 to 42 inches: moderately rapid to very rapid (2 to 100 inches/hour)
 42 to 45 inches: moderately rapid to very rapid (2 to 100 inches/hour)
 45 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Applying gravel base material to log landings during construction and operation will help overcome limitations caused by sandy surfaces.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Maintaining a vegetative cover or spreading slash over exposed soil areas will help overcome harvest equipment operability limitations caused by sandy surfaces.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

DeA—Deerfield loamy sand, 0 to 3 percent slopes

Setting

This soil is sandy, very deep, nearly level, and moderately well drained. It is on footslopes of proglacial deltas in the Champlain Valley. Areas range from 3 to 250 acres in size.

Map Unit Composition

Major Components
Deerfield: 85 percent

Inclusions
Stafford: 5 percent
Windsor: 4 percent
Claverack: 3 percent
Factoryville: 2 percent
Cosad: 1 percent

The somewhat poorly drained Stafford and Cosad, excessively drained Windsor, Claverack, and well drained Factoryville soils may be included in areas of this map unit. Stafford and Cosad soils occupy slightly lower positions, and Cosad soils are sandy over clayey. Windsor and Factoryville soils occupy higher positions, and Factoryville soils have finer sand textures. Claverack soils occupy similar positions, but are sandy over clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
  Deerfield: no
Hydrologic group:
  Deerfield: A/D

Soil Properties and Qualities

Deerfield
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: 18 to 30 inches
    Water table kind: apparent
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
    0 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
    10 to 15 inches: very strongly acid to slightly acid (4.5 to 6.5)
    15 to 30 inches: very strongly acid to slightly acid (4.5 to 6.5)
    30 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 10 inches: moderately rapid or rapid (2 to 20 inches/hour)
    10 to 15 inches: rapid (6 to 20 inches/hour)
    15 to 30 inches: rapid (6 to 20 inches/hour)
    30 to 72 inches: rapid or very rapid (6 to 60 inches/hour)

Use and Management

Cropland

- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture

- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.

Correlation Note: The DeA and DeB map units have moderate structure in the Ap horizon which is stronger than allowed in the range of the Deerfield series. This should not significantly affect use and management on a local basis for most purposes.

DeB—Deerfield loamy sand, 3 to 8 percent slopes

Setting

This soil is sandy, very deep, gently sloping, and moderately well drained. It is on footslopes of proglacial deltas in the Champlain Valley. Areas range from 3 to 35 acres in size.

Map Unit Composition

Major Components
Deerfield: 85 percent

Inclusions
Stafford: 5 percent
Windsor: 4 percent
Claverack: 3 percent
Factoryville: 2 percent
Cosad: 1 percent

The somewhat poorly drained Stafford and Cosad, excessively drained Windsor, Claverack, and well drained Factoryville soils may be included in areas of this map unit. Stafford and Cosad soils occupy slightly lower positions and Cosad soils are sandy over clayey. Windsor and Factoryville soils occupy higher positions, and Factoryville soils have finer sand textures. Claverack soils occupy similar positions, but are sandy over clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
Deerfield: no
Hydrologic group:
Deerfield: A/D

Soil Properties and Qualities

Deerfield
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
Water table kind: apparent
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
10 to 15 inches: very strongly acid to slightly acid (4.5 to 6.5)
15 to 30 inches: very strongly acid to slightly acid (4.5 to 6.5)
30 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 10 inches: moderately rapid or rapid (2 to 20 inches/hour)
10 to 15 inches: rapid (6 to 20 inches/hour)
15 to 30 inches: rapid (6 to 20 inches/hour)
30 to 72 inches: rapid or very rapid (6 to 60 inches/hour)

Use and Management

Cropland
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.

- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.

Correlation Note: The DeA and DeB map units have moderate structure in the Ap horizon which is stronger than allowed in the range of the Deerfield series. This should not significantly affect use and management on a local basis for most purposes.

DpC—Depeyster silt loam, 8 to 15 percent slopes

Setting

This soil is silty and clayey, very deep, strongly sloping, and moderately well drained. It is on shoulders and backslopes of glacial-valley walls in the Adirondack Upland. Areas range from 3 to 90 acres in size.

Map Unit Composition

Major Components
Depeyster: 85 percent

Inclusions
Hailesboro: 5 percent
Nicholville: 4 percent
Champlain: 3 percent
Roundabout: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Hailesboro and Roundabout, Nicholville, and somewhat excessively drained Champlain soils may be included in areas of this map unit. Also included are well drained areas of silty and clayey soils. Hailesboro and Roundabout soils occupy slightly lower positions, and Roundabout soils are silty. Nicholville soils occupy similar positions, but are silty. Champlain soils occupy higher positions, and are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Depeyster: no
Hydrologic group:
  Depeyster: C/D

Soil Properties and Qualities

Depeyster
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: very high
Landform: glacial-valley walls
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock

Reaction (pH):
- 0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
- 4 to 7 inches: strongly acid to neutral (5.1 to 7.3)
- 7 to 13 inches: slightly acid or neutral (6.1 to 7.3)
- 13 to 18 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 18 to 25 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 25 to 31 inches: neutral to moderately alkaline (6.6 to 8.4)
- 31 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)

Permeability:
- 0 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 7 inches: moderate (0.6 to 2 inches/hour)
- 7 to 13 inches: slow to moderate (0.06 to 2 inches/hour)
- 13 to 18 inches: slow to moderate (0.06 to 2 inches/hour)
- 18 to 25 inches: slow to moderate (0.06 to 2 inches/hour)
- 25 to 31 inches: slow to moderate (0.06 to 2 inches/hour)
- 31 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Controlling traffic during wet periods can minimize soil compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.

- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

DpD—Depeyster silt loam, 15 to 25 percent slopes

Setting

This soil is silty and clayey, very deep, moderately steep, and moderately well drained. It is on backslopes of glacial-valley walls in the Adirondack Upland. Areas range from 4 to 105 acres in size.

Map Unit Composition

Major Components
Depeyster: 85 percent

Inclusions
Nicholville: 6 percent
Hailesboro: 4 percent
Champlain: 3 percent
Unnamed: 2 percent

The Nicholville, somewhat poorly drained Hailesboro, and somewhat excessively drained Champlain soils may be included in areas of this map unit. Also included are well drained areas of silty and clayey soils. Nicholville soils occupy similar positions, but are silty. Hailesboro soils occupy slightly lower positions. Champlain soils occupy higher positions, and are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Depeyster: no
Hydrologic group:
  Depeyster: C/D

Soil Properties and Qualities

Depeyster
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: very high
Landform: glacial-valley walls
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
  4 to 7 inches: strongly acid to neutral (5.1 to 7.3)
  7 to 13 inches: slightly acid or neutral (6.1 to 7.3)
  13 to 18 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  18 to 25 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  25 to 31 inches: neutral to moderately alkaline (6.6 to 8.4)
  31 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 7 inches: moderate (0.6 to 2 inches/hour)
  7 to 13 inches: slow to moderate (0.06 to 2 inches/hour)
  13 to 18 inches: slow to moderate (0.06 to 2 inches/hour)
  18 to 25 inches: slow to moderate (0.06 to 2 inches/hour)

25 to 31 inches: slow to moderate (0.06 to 2 inches/hour)
31 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland

- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Controlling traffic during wet periods can minimize soil compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

DuC—Dunkirk silt loam, 8 to 15 percent slopes

Setting

This soil is silty and clayey, very deep, strongly sloping, and well drained. It is on shoulders and backslopes of lake plains in the Champlain Valley. Areas range from 3 to 125 acres in size.

Map Unit Composition

Major Components
Dunkirk: 85 percent

Inclusions
Collamer: 3 percent
Hartland: 3 percent
Cayuga: 2 percent

Elmridge: 2 percent
Factoryville: 2 percent
Niagara: 2 percent
Unnamed: 1 percent

The moderately well drained Collamer, Cayuga, and Elmridge, Hartland, Factoryville, and somewhat poorly drained Niagara soils may be included in areas of this map unit. Also included are areas that have a slightly higher clay content. Collamer, Cayuga, and Elmridge soils occupy slightly lower positions; Cayuga soils are clayey over loamy; and Elmridge soils are loamy over clayey. Hartland and Factoryville soils occupy similar positions, but Hartland soils are silty; and Factoryville soils are sandy. Niagara soils are on small depressions and drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Dunkirk: no
Hydrologic group:
  Dunkirk: C

Soil Properties and Qualities

Dunkirk
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: medium
Landform: lake plains
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 6 inches: strongly acid to slightly acid (5.1 to 6.5)
  6 to 10 inches: strongly acid to neutral (5.1 to 7.3)
  10 to 15 inches: strongly acid to neutral (5.1 to 7.3)
  15 to 21 inches: strongly acid to neutral (5.1 to 7.3)
  21 to 29 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  29 to 35 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  35 to 42 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  42 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
  0 to 6 inches: moderate (0.6 to 2 inches/hour)
  6 to 10 inches: moderate (0.6 to 2 inches/hour)
  10 to 15 inches: moderate (0.6 to 2 inches/hour)
  15 to 21 inches: moderate (0.6 to 2 inches/hour)
  21 to 29 inches: slow to moderate (0.06 to 2 inches/hour)
  29 to 35 inches: slow to moderate (0.06 to 2 inches/hour)
  35 to 42 inches: slow to moderate (0.06 to 2 inches/hour)
  42 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland

- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland

- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The potential for shrink-swell in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

DuD—Dunkirk silt loam, 15 to 25 percent slopes

Setting

This soil is silty and clayey, very deep, moderately steep, and well drained. It is on backslopes of lake plains in the Champlain Valley. Areas range from 3 to 110 acres in size.

Map Unit Composition

Major Components
Dunkirk: 85 percent

Inclusions
Hartland: 5 percent
Factoryville: 3 percent
Vergennes: 3 percent
Collamer: 2 percent
Unnamed: 2 percent

The Hartland, Factoryville, and moderately well drained Vergennes and Collamer soils may be included in areas of this map unit. Also included are areas that have a slightly higher clay content. Hartland and Factoryville soils occupy similar positions, but Hartland soils are silty, and Factoryville soils are sandy. Collamer and Vergennes soils occupy slightly lower positions, and Vergennes soils are clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Dunkirk: no
Hydrologic group:
  Dunkirk: C

Soil Properties and Qualities

Dunkirk
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: high
Landform: lake plains
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 6 inches: strongly acid to slightly acid (5.1 to 6.5)
  6 to 10 inches: strongly acid to neutral (5.1 to 7.3)

10 to 15 inches: strongly acid to neutral (5.1 to 7.3)
15 to 21 inches: strongly acid to neutral (5.1 to 7.3)
21 to 29 inches: moderately acid to slightly alkaline (5.6 to 7.8)
29 to 35 inches: moderately acid to slightly alkaline (5.6 to 7.8)
35 to 42 inches: slightly acid to moderately alkaline (6.1 to 8.4)
42 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)

Permeability:
0 to 6 inches: moderate (0.6 to 2 inches/hour)
6 to 10 inches: moderate (0.6 to 2 inches/hour)
10 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 21 inches: moderate (0.6 to 2 inches/hour)
21 to 29 inches: slow to moderate (0.06 to 2 inches/hour)
29 to 35 inches: slow to moderate (0.06 to 2 inches/hour)
35 to 42 inches: slow to moderate (0.06 to 2 inches/hour)
42 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The potential for shrink-swell in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors.

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

DuE—Dunkirk silt loam, 25 to 45 percent slopes

Setting

This soil is silty and clayey, very deep, very steep, and well drained. It is on backslopes of lake plains in the Champlain Valley. Areas range from 5 to 265 acres in size.

Map Unit Composition

Major Components
Dunkirk: 85 percent

Inclusions
Hartland: 5 percent
Factoryville: 4 percent
Vergennes: 3 percent
Unnamed: 2 percent
Collamer: 1 percent

The Hartland, Factoryville, and moderately well drained Vergennes and Collamer soils may be included in areas of this map unit. Also included are areas that have a slightly higher clay content. Hartland and Factoryville soils occupy similar positions, but Hartland soils are silty, and Factoryville soils are sandy. Collamer and Vergennes soils occupy slightly lower positions, and Vergennes soils are clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6e
Hydric soil rating:
Dunkirk: no

Hydrologic group:
Dunkirk: C

Soil Properties and Qualities

Dunkirk
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: high
Landform: lake plains
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 6 inches: strongly acid to slightly acid (5.1 to 6.5)
6 to 10 inches: strongly acid to neutral (5.1 to 7.3)
10 to 15 inches: strongly acid to neutral (5.1 to 7.3)
15 to 21 inches: strongly acid to neutral (5.1 to 7.3)
21 to 29 inches: moderately acid to slightly alkaline (5.6 to 7.8)
29 to 35 inches: moderately acid to slightly alkaline (5.6 to 7.8)
35 to 42 inches: slightly acid to moderately alkaline (6.1 to 8.4)
42 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
0 to 6 inches: moderate (0.6 to 2 inches/hour)
6 to 10 inches: moderate (0.6 to 2 inches/hour)
10 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 21 inches: moderate (0.6 to 2 inches/hour)
21 to 29 inches: slow to moderate (0.06 to 2 inches/hour)
29 to 35 inches: slow to moderate (0.06 to 2 inches/hour)
35 to 42 inches: slow to moderate (0.06 to 2 inches/hour)
42 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining

properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
• Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
• Erosion and sediment control can be severe problems where this map unit is cleared for development.
• Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
• The potential for shrink-swell in these soils results in a limited capacity to support a load without movement and may cause foundations to shift and basement walls and floors to crack.
• The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
• The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
• Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
• Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
• Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
• Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
• The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
• The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

DxB—Duxbury fine sandy loam, 3 to 8 percent slopes

Setting

This soil is loamy over sandy and gravelly, very deep, gently sloping, and well drained. It is on summits and shoulders of outwash terraces in the Adirondack Upland. Areas range from 3 to 135 acres in size.

Map Unit Composition

Major Components
Duxbury: 85 percent

Inclusions
Colton: 5 percent
Adams: 4 percent

Champlain: 2 percent
Unnamed: 2 percent
Croghan: 1 percent
Monadnock: 1 percent

The excessively drained Colton, somewhat excessively drained Adams and Champlain, moderately well drained Croghan, and Monadnock soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Colton, Adams, Champlain, and Monadnock soils occupy similar positions, but Colton soils are sandy and gravelly; Adams and Champlain soils are sandy and Champlain soils lack a spodic horizon; and Monadnock soils are underlain by till. Croghan soils are on small depressions or drainageways, and are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Duxbury: no
Hydrologic group:
  Duxbury: A

Soil Properties and Qualities

Duxbury
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: outwash terraces
Parent material: loamy lacustrine deposits over gravelly outwash derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: extremely acid to slightly acid (3.5 to 6.5)
  4 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 13 inches: extremely acid to slightly acid (3.5 to 6.5)
  13 to 21 inches: extremely acid to slightly acid (3.5 to 6.5)
  21 to 31 inches: very strongly acid to slightly acid (4.5 to 6.5)
  31 to 36 inches: very strongly acid to slightly acid (4.5 to 6.5)
  36 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  21 to 31 inches: very rapid (20 to 100 inches/hour)
  31 to 36 inches: very rapid (20 to 100 inches/hour)
  36 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- These soils have no restrictions for commercial woodland use.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

ElB—Elmridge fine sandy loam, 2 to 8 percent slopes

Setting

This soil is loamy over clayey, very deep, gently sloping, and moderately well drained. It is on summits and shoulders of lake plains in the Champlain Valley. Areas range from 3 to 90 acres in size.

Map Unit Composition

Major Components
Elmridge: 85 percent

Inclusions
Claverack: 5 percent
Unnamed: 4 percent
Cosad: 2 percent

Kingsbury: 2 percent
Niagara: 1 percent
Vergennes: 1 percent

The Claverack, Vergennes, and the somewhat poorly drained Cosad and Kingsbury and Niagara soils may be included in areas of this map unit. Also included are small areas of somewhat poorly drained loamy over clayey soils. Claverack and Vergennes soils occupy similar positions, but Claverack soils are sandy over clayey; and Vergennes soils are clayey. Cosad, Kingsbury, and Niagara soils occupy slightly lower positions, and Cosad soils are sandy over clayey, Kingsbury soils are clayey, and Niagara soils are silty and clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
Elmridge: no
Hydrologic group:
Elmridge: C/D

Soil Properties and Qualities

Elmridge
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 40 inches to strongly contrasting textural stratification
Depth to seasonal high water table: 18 to 30 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: low
Landform: lake plains
Parent material: loamy glaciolacustrine deposits derived from igneous and sedimentary rock over clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
8 to 15 inches: strongly acid to neutral (5.1 to 7.3)
15 to 25 inches: strongly acid to neutral (5.1 to 7.3)
25 to 31 inches: strongly acid to neutral (5.1 to 7.3)
31 to 46 inches: moderately acid to slightly alkaline (5.6 to 7.8)
46 to 72 inches: moderately acid to slightly alkaline (5.6 to 7.8)
Permeability:
0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
8 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
15 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
25 to 31 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
31 to 46 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
46 to 72 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.

- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause foundations to shift and basement walls and floors to crack.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

FaD—Farmington loam, 15 to 35 percent slopes, very rocky, very stony

Setting

This soil is loamy, shallow, moderately steep and steep, and well drained. It is on backslopes of glaciated hills in the Champlain Valley. Areas range from 3 to 55 acres in size.

Map Unit Composition

Major Components
Farmington, very rocky, very stony: 85 percent

Inclusions
Rock Outcrop: 9 percent
Galway: 2 percent
Amenia: 1 percent
Nellis: 1 percent
Unnamed: 1 percent
Vergennes: 1 percent

The Galway, Nellis, and moderately well drained Amenia and Vergennes soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Galway and Nellis soils occupy similar positions, but Galway soils are moderately deep to bedrock, and Nellis soils are very deep. Amenia and Vergennes soils occupy slightly lower positions and are both very deep. Vergennes soils are clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Farmington, very rocky, very stony: no
Hydrologic group:
    Farmington, very rocky, very stony: D

Soil Properties and Qualities

Farmington, very rocky, very stony
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony

Landform: glaciated hills
Parent material: loamy till derived from limestone
Reaction (pH):
 0 to 6 inches: strongly acid to neutral (5.1 to 7.3)
 6 to 13 inches: moderately acid to slightly alkaline (5.6 to 7.8)
 13 inches, bedrock
Permeability:
 0 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 13 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the rock outcrops.

Pasture
- The slope may restrict the use of most farm equipment.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of

excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

FcB—Factoryville-Colonie complex, 3 to 8 percent slopes

Setting

These soils are sandy, very deep, gently sloping, and well drained to somewhat excessively drained. They are on summits and shoulders of proglacial deltas in the Champlain Valley. Areas range from 5 to 155 acres in size.

Map Unit Composition

Major Components
Factoryville: 45 percent
Colonie, calcareous substratum: 30 percent

Inclusions
Deerfield: 8 percent
Dunkirk: 5 percent
Hartland: 5 percent
Howard: 3 percent
Elmridge: 2 percent
Unnamed: 2 percent

The moderately well drained Deerfield and Elmridge, Dunkirk, Hartland, and Howard soils may be included in areas of this map unit. Also included are small areas of moderately well drained silty soils. Deerfield and Elmridge soils occupy slightly lower positions, and Elmridge soils are loamy over clayey. Dunkirk, Hartland, and Howard soils occupy similar positions, but Dunkirk soils are silty and clayey; Hartland soils are silty; and Howard soils are loamy and gravelly. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2s
Hydric soil rating:
  Factoryville: no
  Colonie, calcareous substratum: no
Hydrologic group:
  Factoryville: A
  Colonie, calcareous substratum: A

Soil Properties and Qualities

Factoryville
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 24 to 39 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 11 inches: moderately acid to neutral (5.6 to 7.3)
  11 to 19 inches: strongly acid to neutral (5.1 to 7.3)
  19 to 29 inches: strongly acid to neutral (5.1 to 7.3)
  29 to 33 inches: strongly acid to neutral (5.1 to 7.3)
  33 to 65 inches: moderately acid to neutral (5.6 to 7.3)
  65 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
  0 to 11 inches: rapid (6 to 20 inches/hour)
  11 to 19 inches: rapid (6 to 20 inches/hour)
  19 to 29 inches: rapid (6 to 20 inches/hour)
  29 to 33 inches: rapid (6 to 20 inches/hour)
  33 to 65 inches: rapid (6 to 20 inches/hour)
  65 to 72 inches: rapid (6 to 20 inches/hour)

Colonie, calcareous substratum
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock

Reaction (pH):
- 0 to 9 inches: very strongly acid to neutral (4.5 to 7.3)
- 9 to 14 inches: very strongly acid to neutral (4.5 to 7.3)
- 14 to 25 inches: very strongly acid to neutral (4.5 to 7.3)
- 25 to 37 inches: very strongly acid to neutral (4.5 to 7.3)
- 37 to 49 inches: very strongly acid to neutral (4.5 to 7.3)
- 49 to 56 inches: strongly acid to moderately alkaline (5.1 to 8.4)
- 56 to 61 inches: strongly acid to moderately alkaline (5.1 to 8.4)
- 61 to 72 inches: strongly acid to moderately alkaline (5.1 to 8.4)

Permeability:
- 0 to 9 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 9 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 14 to 25 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 25 to 37 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 37 to 49 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 49 to 56 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 56 to 61 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 61 to 72 inches: moderately rapid or rapid (2 to 20 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity (fig. 18).

Woodland
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table in some areas of this map unit may severely limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Figure 18.—Good alfalfa production on a flat terrace of Factoryville and Colonie soils in the town of Crown Point. Native fertility of these loamy sands is good, but plants may suffer moisture stress (drought) in some years toward the end of the growing season.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of this map unit may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table in some areas of this map unit may impede excavation and grading and reduce the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.

FcC—Factoryville-Colonie complex, 8 to 15 percent slopes

Setting

These soils are sandy, very deep, strongly sloping, and well drained to somewhat excessively drained. They are on shoulders and backslopes of proglacial deltas in the Champlain Valley. Areas range from 5 to 55 acres in size.

Map Unit Composition

Major Components
Factoryville: 45 percent
Colonie, calcareous substratum: 30 percent

Inclusions
Deerfield: 5 percent
Dunkirk: 5 percent
Hartland: 5 percent
Howard: 5 percent
Unnamed: 5 percent

The moderately well drained Deerfield, Dunkirk, Hartland, and Howard soils may be included in areas of this map unit. Also included are small areas of moderately well drained silty soils. Deerfield soils occupy slightly lower positions. Dunkirk, Hartland, and Howard soils occupy similar positions, but Dunkirk soils are silty and clayey; Hartland soils are silty; and Howard soils are loamy and gravelly. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Factoryville: no
  Colonie, calcareous substratum: no
Hydrologic group:
  Factoryville: A
  Colonie, calcareous substratum: A

Soil Properties and Qualities

Factoryville
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 24 to 39 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 11 inches: moderately acid to neutral (5.6 to 7.3)
  11 to 19 inches: strongly acid to neutral (5.1 to 7.3)
  19 to 29 inches: strongly acid to neutral (5.1 to 7.3)
  29 to 33 inches: strongly acid to neutral (5.1 to 7.3)
  33 to 65 inches: moderately acid to neutral (5.6 to 7.3)
  65 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
  0 to 11 inches: rapid (6 to 20 inches/hour)
  11 to 19 inches: rapid (6 to 20 inches/hour)
  19 to 29 inches: rapid (6 to 20 inches/hour)

29 to 33 inches: rapid (6 to 20 inches/hour)
33 to 65 inches: rapid (6 to 20 inches/hour)
65 to 72 inches: rapid (6 to 20 inches/hour)

Colonie, calcareous substratum
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 9 inches: very strongly acid to neutral (4.5 to 7.3)
9 to 14 inches: very strongly acid to neutral (4.5 to 7.3)
14 to 25 inches: very strongly acid to neutral (4.5 to 7.3)
25 to 37 inches: very strongly acid to neutral (4.5 to 7.3)
37 to 49 inches: very strongly acid to neutral (4.5 to 7.3)
49 to 56 inches: strongly acid to moderately alkaline (5.1 to 8.4)
56 to 61 inches: strongly acid to moderately alkaline (5.1 to 8.4)
61 to 72 inches: strongly acid to moderately alkaline (5.1 to 8.4)
Permeability:
0 to 9 inches: moderately rapid or rapid (2 to 20 inches/hour)
9 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 25 inches: moderately rapid or rapid (2 to 20 inches/hour)
25 to 37 inches: moderately rapid or rapid (2 to 20 inches/hour)
37 to 49 inches: moderately rapid or rapid (2 to 20 inches/hour)
49 to 56 inches: moderately rapid or rapid (2 to 20 inches/hour)
56 to 61 inches: moderately rapid or rapid (2 to 20 inches/hour)
61 to 72 inches: moderately rapid or rapid (2 to 20 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table in some areas of this map unit may severely limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of this map unit may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table in some areas of this map unit may impede excavation and grading and reduce the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

FcD—Factoryville-Colonie complex, 15 to 25 percent slopes

Setting

These soils are sandy, very deep, moderately steep, and well drained to somewhat excessively drained. They are on backslopes of proglacial deltas in the Champlain Valley. Areas range from 3 to 75 acres in size.

Map Unit Composition

Major Components
Factoryville: 45 percent
Colonie, calcareous substratum: 30 percent

Inclusions
Dunkirk: 8 percent

Hartland: 5 percent
Howard: 5 percent
Unnamed: 5 percent
Deerfield: 2 percent

The Dunkirk, Hartland, Howard, and moderately well drained Deerfield soils may be included in areas of this map unit. Also included are small areas of moderately well drained silty soils. Dunkirk, Hartland, and Howard soils occupy similar positions, but Dunkirk soils are silty and clayey; Hartland soils are silty; and Howard soils are loamy and gravelly. Deerfield soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6e
Hydric soil rating:
  Factoryville: no
  Colonie, calcareous substratum: no
Hydrologic group:
  Factoryville: A
  Colonie, calcareous substratum: A

Soil Properties and Qualities

Factoryville
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 24 to 39 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 11 inches: moderately acid to neutral (5.6 to 7.3)
  11 to 19 inches: strongly acid to neutral (5.1 to 7.3)
  19 to 29 inches: strongly acid to neutral (5.1 to 7.3)
  29 to 33 inches: strongly acid to neutral (5.1 to 7.3)
  33 to 65 inches: moderately acid to neutral (5.6 to 7.3)
  65 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
  0 to 11 inches: rapid (6 to 20 inches/hour)
  11 to 19 inches: rapid (6 to 20 inches/hour)
  19 to 29 inches: rapid (6 to 20 inches/hour)
  29 to 33 inches: rapid (6 to 20 inches/hour)
  33 to 65 inches: rapid (6 to 20 inches/hour)
  65 to 72 inches: rapid (6 to 20 inches/hour)

Colonie, calcareous substratum
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches

Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 9 inches: very strongly acid to neutral (4.5 to 7.3)
9 to 14 inches: very strongly acid to neutral (4.5 to 7.3)
14 to 25 inches: very strongly acid to neutral (4.5 to 7.3)
25 to 37 inches: very strongly acid to neutral (4.5 to 7.3)
37 to 49 inches: very strongly acid to neutral (4.5 to 7.3)
49 to 56 inches: strongly acid to moderately alkaline (5.1 to 8.4)
56 to 61 inches: strongly acid to moderately alkaline (5.1 to 8.4)
61 to 72 inches: strongly acid to moderately alkaline (5.1 to 8.4)
Permeability:
0 to 9 inches: moderately rapid or rapid (2 to 20 inches/hour)
9 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
14 to 25 inches: moderately rapid or rapid (2 to 20 inches/hour)
25 to 37 inches: moderately rapid or rapid (2 to 20 inches/hour)
37 to 49 inches: moderately rapid or rapid (2 to 20 inches/hour)
49 to 56 inches: moderately rapid or rapid (2 to 20 inches/hour)
56 to 61 inches: moderately rapid or rapid (2 to 20 inches/hour)
61 to 72 inches: moderately rapid or rapid (2 to 20 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.

- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table in some areas of this map unit may severely limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of this map unit may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table in some areas of this map unit may impede excavation and grading and reduce the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

FdF—Factoryville-Dunkirk complex, 25 to 60 percent slopes

Setting

These soils are sandy, and silty and clayey, very deep, steep, and well drained. They are on backslopes of proglacial deltas in the Champlain Valley. Areas range from 5 to 640 acres in size.

Map Unit Composition

Major Components
Factoryville: 45 percent
Dunkirk: 30 percent

Inclusions
Colonie: 8 percent
Hartland: 7 percent
Howard: 4 percent
Pittsfield: 4 percent
Unnamed: 2 percent

The somewhat excessively drained Colonie, Hartland, Howard, and Pittsfield soils may be included in areas of this map unit. Also included are small areas of moderately well drained silty soils. Colonie, Hartland, Howard, and Pittsfield soils occupy similar positions, but Hartland soils are silty; Howard soils are loamy and gravelly; and Pittsfield soils are loamy. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7e
Hydric soil rating:
  Factoryville: no
  Dunkirk: no
Hydrologic group:
  Factoryville: A
  Dunkirk: C

Soil Properties and Qualities

Factoryville
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 24 to 39 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: medium
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 11 inches: moderately acid to neutral (5.6 to 7.3)
  11 to 19 inches: strongly acid to neutral (5.1 to 7.3)
  19 to 29 inches: strongly acid to neutral (5.1 to 7.3)
  29 to 33 inches: strongly acid to neutral (5.1 to 7.3)
  33 to 65 inches: moderately acid to neutral (5.6 to 7.3)
  65 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
  0 to 11 inches: rapid (6 to 20 inches/hour)
  11 to 19 inches: rapid (6 to 20 inches/hour)
  19 to 29 inches: rapid (6 to 20 inches/hour)
  29 to 33 inches: rapid (6 to 20 inches/hour)
  33 to 65 inches: rapid (6 to 20 inches/hour)
  65 to 72 inches: rapid (6 to 20 inches/hour)

Dunkirk
Drainage class: well drained
Depth to bedrock: greater than 60 inches

Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: high
Landform: lake plains
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
- 0 to 6 inches: strongly acid to slightly acid (5.1 to 6.5)
- 6 to 10 inches: strongly acid to neutral (5.1 to 7.3)
- 10 to 15 inches: strongly acid to neutral (5.1 to 7.3)
- 15 to 21 inches: strongly acid to neutral (5.1 to 7.3)
- 21 to 29 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 29 to 35 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 35 to 42 inches: slightly acid to moderately alkaline (6.1 to 8.4)
- 42 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)

Permeability:
- 0 to 6 inches: moderate (0.6 to 2 inches/hour)
- 6 to 10 inches: moderate (0.6 to 2 inches/hour)
- 10 to 15 inches: moderate (0.6 to 2 inches/hour)
- 15 to 21 inches: moderate (0.6 to 2 inches/hour)
- 21 to 29 inches: slow to moderate (0.06 to 2 inches/hour)
- 29 to 35 inches: slow to moderate (0.06 to 2 inches/hour)
- 35 to 42 inches: slow to moderate (0.06 to 2 inches/hour)
- 42 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table in some areas severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The potential for shrink-swell in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of this map unit may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through some areas of these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table in some areas impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling in some areas can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- The low bearing strength of these soils in some areas is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

FgB—Farmington-Galway complex, 3 to 15 percent slopes, very rocky, very stony

Setting

These soils are loamy, shallow and moderately deep, gently sloping to strongly sloping, and well drained. They are on summits and shoulders of glaciated hills in the Champlain Valley. Areas range from 3 to 185 acres in size.

Map Unit Composition

Major Components
Farmington, very rocky, very stony: 45 percent
Galway, very rocky, very stony: 30 percent

Inclusions
Nellis: 5 percent
Rock Outcrop: 5 percent
Amenia: 4 percent
Elmridge: 4 percent
Massena: 4 percent
Unnamed: 3 percent

The Nellis, moderately well drained Amenia and Elmridge, and somewhat poorly drained Massena soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Nellis soils occupy similar positions, but are very deep. Amenia and Elmridge soils occupy slightly lower positions, are both very deep, and Elmridge soils are loamy over clayey. Massena soils are on small depressions and drainageways and are very deep. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
 Farmington, very rocky, very stony: no
 Galway, very rocky, very stony: no
Hydrologic group:
 Farmington, very rocky, very stony: D
 Galway, very rocky, very stony: B

Soil Properties and Qualities

Farmington, very rocky, very stony
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from limestone
Reaction (pH):
 0 to 6 inches: strongly acid to neutral (5.1 to 7.3)
 6 to 13 inches: moderately acid to slightly alkaline (5.6 to 7.8)
 13 inches, bedrock
Permeability:
 0 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 13 inches, bedrock

Galway, very rocky, very stony
Drainage class: well drained

Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from limestone
Reaction (pH):
- 0 to 5 inches: moderately acid to neutral (5.6 to 7.3)
- 5 to 9 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 9 to 18 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 18 to 35 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
- 35 inches, bedrock

Permeability:
- 0 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 35 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 35 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the rock outcrops (fig. 19).

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep and shallow soils.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.

Figure 19.—An area of Farmington-Galway complex at the Fort Crown Point state historic site. This photo illustrates depth to limestone bedrock in these map units. The rock outcrops and surface stoniness make tillage impractical; however, these areas could provide marginal pasture. This map unit has severe limitations for residential development and local roads and streets because of the mostly shallow depth to bedrock.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

FkF—Farmington-Rock outcrop complex, 35 to 60 percent slopes, very stony

Setting

This map unit consists of areas of exposed bedrock and soils that are loamy, shallow, very steep, and well drained. It is on backslopes of glaciated hills in the Champlain Valley. Areas range from 5 to 35 acres in size.

Map Unit Composition

Major Components
Farmington, very stony: 60 percent
Rock outcrop, very stony: 30 percent

Inclusions
Galway: 4 percent
Nellis: 3 percent
Unnamed: 3 percent

The Galway and Nellis soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Galway and Nellis soils occupy similar positions, but Galway soils are moderately deep to bedrock; and Nellis soils are very deep. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Farmington, very stony: no
  Rock outcrop, very stony: unranked
Hydrologic group:
  Farmington, very stony: D
  Rock outcrop, very stony: unranked

Soil Properties and Qualities

Farmington, very stony
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from limestone

Reaction (pH):
- 0 to 6 inches: strongly acid to neutral (5.1 to 7.3)
- 6 to 13 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 13 inches, bedrock

Permeability:
- 0 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 inches, bedrock

Rock outcrop, very stony

Characteristics not defined for this component.

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of the slope, the erosion hazard, and the rock outcrops.

Pasture

- These soils are generally not recommended for pasture.

Woodland

- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

FnB—Fernlake loamy fine sand, 3 to 8 percent slopes, very bouldery

Setting

This soil is sandy, very deep, gently sloping, and somewhat excessively drained. It is on summits and shoulders of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 380 acres in size.

Map Unit Composition

Major Components
Fernlake, very bouldery: 85 percent

Inclusions
Champlain: 3 percent
Hermon: 3 percent
Monadnock: 3 percent
Becket: 2 percent
Adams: 1 percent
Colton: 1 percent
Sunapee: 1 percent
Unnamed: 1 percent

The Champlain, Hermon, Adams, well drained Monadnock and Becket, excessively drained Colton, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Champlain, Hermon, Adams, Monadnock, Becket, and Colton soils occupy similar positions, but Champlain and Adams soils have few or no rock fragments and Champlain soils lack a spodic horizon; Monadnock and Becket soils are loamy; and Hermon and Colton soils

are sandy and gravelly. Sunapee soils occupy slightly lower positions, and are loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Fernlake, very bouldery: no
Hydrologic group:
Fernlake, very bouldery: A

Soil Properties and Qualities

Fernlake, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy ablation till derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
8 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
19 to 33 inches: very strongly acid to moderately acid (4.5 to 6.0)
33 to 41 inches: strongly acid to slightly acid (5.1 to 6.5)
41 to 57 inches: strongly acid to slightly acid (5.1 to 6.5)
57 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 4 inches: moderately rapid or rapid (2 to 20 inches/hour)
4 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
8 to 19 inches: moderately rapid or rapid (2 to 20 inches/hour)
19 to 33 inches: moderately rapid or rapid (2 to 20 inches/hour)
33 to 41 inches: moderately rapid to very rapid (2 to 100 inches/hour)
41 to 57 inches: moderately rapid to very rapid (2 to 100 inches/hour)
57 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Poorly treated effluent may pollute the water table.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

FnC—Fernlake loamy fine sand, 8 to 15 percent slopes, very bouldery

Setting

This soil is sandy, very deep, strongly sloping, and somewhat excessively drained. It is on shoulders and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 4 to 650 acres in size.

Map Unit Composition

Major Components
Fernlake, very bouldery: 85 percent

Inclusions
Champlain: 3 percent
Hermon: 3 percent
Monadnock: 3 percent
Becket: 2 percent
Adams: 1 percent
Colton: 1 percent
Sunapee: 1 percent
Unnamed: 1 percent

The Champlain, Hermon, Adams, well drained Monadnock and Becket, excessively drained Colton, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Champlain, Hermon, Adams, Monadnock, Becket, and Colton soils occupy similar positions, but Champlain and Adams soils have few or no rock fragments and Champlain soils lack a spodic horizon, Monadnock and Becket soils are loamy, and Hermon and Colton soils are sandy and gravelly. Sunapee soils occupy slightly lower positions, and are loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Fernlake, very bouldery: no
Hydrologic group:
  Fernlake, very bouldery: A

Soil Properties and Qualities

Fernlake, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
  4 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
  8 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
  19 to 33 inches: very strongly acid to moderately acid (4.5 to 6.0)
  33 to 41 inches: strongly acid to slightly acid (5.1 to 6.5)
  41 to 57 inches: strongly acid to slightly acid (5.1 to 6.5)
  57 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
  0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  2 to 4 inches: moderately rapid or rapid (2 to 20 inches/hour)
  4 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
  8 to 19 inches: moderately rapid or rapid (2 to 20 inches/hour)
  19 to 33 inches: moderately rapid or rapid (2 to 20 inches/hour)
  33 to 41 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  41 to 57 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  57 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture

- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Poorly treated effluent may pollute the water table.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

FnD—Fernlake loamy fine sand, 15 to 35 percent slopes, very bouldery

Setting

This soil is sandy, very deep, moderately steep and steep, and somewhat

excessively drained. It is on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 510 acres in size.

Map Unit Composition

Major Components
Fernlake, very bouldery: 85 percent

Inclusions
Champlain: 3 percent
Hermon: 3 percent
Monadnock: 3 percent
Becket: 2 percent
Colton: 2 percent
Adams: 1 percent
Unnamed: 1 percent

The Champlain, Hermon, Adams, well drained Monadnock and Becket, and excessively drained Colton soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Champlain, Hermon, Adams, Monadnock, Becket, and Colton soils occupy similar positions, but Champlain and Adams soils have few or no rock fragments and Champlain soils lack a spodic horizon. Monadnock and Becket soils are loamy and Hermon and Colton soils are sandy and gravelly. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Fernlake, very bouldery: no
Hydrologic group:
  Fernlake, very bouldery: A

Soil Properties and Qualities

Fernlake, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
  4 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
  8 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
  19 to 33 inches: very strongly acid to moderately acid (4.5 to 6.0)
  33 to 41 inches: strongly acid to slightly acid (5.1 to 6.5)
  41 to 57 inches: strongly acid to slightly acid (5.1 to 6.5)
  57 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)

Permeability:
- 0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 2 to 4 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 4 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 8 to 19 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 19 to 33 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 33 to 41 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 41 to 57 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 57 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- The slope may restrict the use of most farm equipment.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Poorly treated effluent may pollute the water table.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

FnF—Fernlake loamy fine sand, 35 to 60 percent slopes, very bouldery

Setting

This soil is sandy, very deep, very steep, and somewhat excessively drained. It is on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 6 to 75 acres in size.

Map Unit Composition

Major Components
Fernlake, very bouldery: 85 percent

Inclusions
Champlain: 3 percent
Hermon: 3 percent
Monadnock: 3 percent
Becket: 2 percent
Colton: 2 percent
Adams: 1 percent
Unnamed: 1 percent

The Champlain, Hermon, Adams, well drained Monadnock and Becket, and excessively drained Colton soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Champlain, Hermon, Adams, Monadnock, Becket, and Colton soils occupy similar positions, but Champlain and Adams soils have few or no rock fragments and Champlain soils lack a spodic horizon. Monadnock and Becket soils are loamy and Hermon and Colton soils are sandy and gravelly. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Fernlake, very bouldery: no
Hydrologic group:
    Fernlake, very bouldery: A

Soil Properties and Qualities

Fernlake, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
  4 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
  8 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
  19 to 33 inches: very strongly acid to moderately acid (4.5 to 6.0)
  33 to 41 inches: strongly acid to slightly acid (5.1 to 6.5)
  41 to 57 inches: strongly acid to slightly acid (5.1 to 6.5)
  57 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
  0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  2 to 4 inches: moderately rapid or rapid (2 to 20 inches/hour)
  4 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
  8 to 19 inches: moderately rapid or rapid (2 to 20 inches/hour)
  19 to 33 inches: moderately rapid or rapid (2 to 20 inches/hour)
  33 to 41 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  41 to 57 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  57 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones, and the slope, and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Poorly treated effluent may pollute the water table.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

FrB—Factoryville loamy fine sand, 2 to 8 percent slopes

Setting

This soil is sandy, very deep, gently sloping, and well drained. It is on summits and shoulders of proglacial deltas in the Champlain Valley. Areas range from 3 to 95 acres in size.

Map Unit Composition

Major Components
Factoryville: 85 percent

Inclusions
Deerfield: 5 percent
Unnamed: 3 percent
Windsor: 3 percent
Claverack: 1 percent
Dunkirk: 1 percent
Hartland: 1 percent
Stafford: 1 percent

The moderately well drained Deerfield and Claverack, excessively drained Windsor, Dunkirk, Hartland, and somewhat poorly drained Stafford soils may be included in areas of this map unit. Also included are small areas of moderately well drained silty

soils. Deerfield and Claverack soils occupy slightly lower positions, and Claverack soils are sandy over clayey. Windsor, Dunkirk, and Hartland soils occupy similar positions, but Windsor soils have coarser sands; Dunkirk soils are silty and clayey; and Hartland soils are silty. Stafford soils are on small depressions and drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2s
Hydric soil rating:
  Factoryville: no
Hydrologic group:
  Factoryville: A

Soil Properties and Qualities

Factoryville
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 24 to 39 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 11 inches: moderately acid to neutral (5.6 to 7.3)
  11 to 19 inches: strongly acid to neutral (5.1 to 7.3)
  19 to 29 inches: strongly acid to neutral (5.1 to 7.3)
  29 to 33 inches: strongly acid to neutral (5.1 to 7.3)
  33 to 65 inches: moderately acid to neutral (5.6 to 7.3)
  65 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
  0 to 11 inches: rapid (6 to 20 inches/hour)
  11 to 19 inches: rapid (6 to 20 inches/hour)
  19 to 29 inches: rapid (6 to 20 inches/hour)
  29 to 33 inches: rapid (6 to 20 inches/hour)
  33 to 65 inches: rapid (6 to 20 inches/hour)
  65 to 72 inches: rapid (6 to 20 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table in some areas severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table in some areas impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.

FuA—Fluvaquents-Udifluvents complex, frequently flooded, nearly level

Setting

These soils are loamy, sandy, or gravelly, very deep, and somewhat poorly drained to very poorly drained, or excessively drained to moderately well drained. It is on flood plains throughout the county. Areas range from 3 to 510 acres in size.

Map Unit Composition

Major Components
Fluvaquents, frequently flooded: 45 percent
Udifluvents, frequently flooded: 30 percent

Inclusions
Rippowam: 5 percent
Rumney: 5 percent

Cornish: 3 percent
Podunk: 3 percent
Pootatuck: 3 percent
Lovewell: 2 percent
Occum: 2 percent
Ondawa: 2 percent

The poorly drained Rippowam and Rumney, somewhat poorly drained Cornish, moderately well drained Podunk, Pootatuck, and Lovewell, and well drained Occum and Ondawa soils may be included in areas of this map unit. Rippowam and Rumney soils occupy lower positions than Fluvaquents soils and are loamy. Cornish soils occupy similar positions as Fluvaquents soils and are silty. Podunk, Pootatuck, and Lovewell soils occupy slightly lower positions than Udifluvents soils, Podunk and Pootatuck soils are loamy, and Lovewell soils are silty. Occum and Ondawa soils occupy similar positions as Udifluvents soils and are loamy. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Fluvaquents, frequently flooded: yes
  Udifluvents, frequently flooded: yes
Hydrologic group:
  Fluvaquents, frequently flooded: A/D
  Udifluvents, frequently flooded: A

Soil Properties and Qualities

Fluvaquents, frequently flooded
Drainage class: somewhat poorly to very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: apparent
Flooding: frequent
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: loamy alluvium derived from igneous and sedimentary rock
Reaction (pH):
  0 to 5 inches: strongly acid to neutral (5.1 to 7.3)
  5 to 9 inches: strongly acid to neutral (5.1 to 7.3)
  9 to 21 inches: strongly acid to neutral (5.1 to 7.3)
  21 to 30 inches: strongly acid to neutral (5.1 to 7.3)
  30 to 42 inches: strongly acid to neutral (5.1 to 7.3)
  42 to 72 inches: strongly acid to neutral (5.1 to 7.3)
Permeability:
  0 to 5 inches: moderate to very rapid (0.6 to 100 inches/hour)
  5 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
  9 to 21 inches: moderate to very rapid (0.6 to 100 inches/hour)
  21 to 30 inches: moderate to very rapid (0.6 to 100 inches/hour)
  30 to 42 inches: moderate to very rapid (0.6 to 100 inches/hour)
  42 to 72 inches: moderate to very rapid (0.6 to 100 inches/hour)

Udifluvents, frequently flooded
Drainage class: excessively to moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: frequent
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very low
Landform: flood plains
Parent material: loamy alluvium derived from igneous and sedimentary rock
Reaction (pH):
0 to 4 inches: strongly acid to neutral (5.1 to 7.3)
4 to 6 inches: strongly acid to neutral (5.1 to 7.3)
6 to 10 inches: strongly acid to neutral (5.1 to 7.3)
10 to 12 inches: strongly acid to neutral (5.1 to 7.3)
12 to 24 inches: strongly acid to neutral (5.1 to 7.3)
24 to 28 inches: strongly acid to neutral (5.1 to 7.3)
28 to 34 inches: strongly acid to neutral (5.1 to 7.3)
34 to 38 inches: strongly acid to neutral (5.1 to 7.3)
38 to 44 inches: strongly acid to neutral (5.1 to 7.3)
44 to 56 inches: strongly acid to neutral (5.1 to 7.3)
56 to 72 inches: strongly acid to neutral (5.1 to 7.3)
Permeability:
0 to 4 inches: moderate to very rapid (0.6 to 100 inches/hour)
4 to 6 inches: moderate to very rapid (0.6 to 100 inches/hour)
6 to 10 inches: moderate to very rapid (0.6 to 100 inches/hour)
10 to 12 inches: moderate to very rapid (0.6 to 100 inches/hour)
12 to 24 inches: moderate to very rapid (0.6 to 100 inches/hour)
24 to 28 inches: moderate to very rapid (0.6 to 100 inches/hour)
28 to 34 inches: moderate to very rapid (0.6 to 100 inches/hour)
34 to 38 inches: moderate to very rapid (0.6 to 100 inches/hour)
38 to 44 inches: moderate to very rapid (0.6 to 100 inches/hour)
44 to 56 inches: moderate to very rapid (0.6 to 100 inches/hour)
56 to 72 inches: moderate to very rapid (0.6 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to use as cropland because of frequent flooding.

Pasture
- These soils are generally unsuited to use as pasture because of frequent flooding.

Woodland
- Avoiding construction of haul roads in frequently flooded areas is recommended.
- Avoiding construction of log landings on frequently flooded soils is recommended.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to

them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by ponding or flooding. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: Included in the FuA map unit are some areas of frigid soils. This should not affect use and management of this map unit.

GeB—Georgia loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and moderately well drained. It is on summits and shoulders of glaciated hills and till plains in the Champlain Valley. Areas range from 3 to 220 acres in size.

Map Unit Composition

Major Components
Georgia: 85 percent

Inclusions
Massena: 5 percent
Pittsfield: 3 percent
Amenia: 2 percent
Bombay: 2 percent
Cayuga: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Massena, well drained Pittsfield, Amenia, Bombay, and Cayuga soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Massena soils are on small depressions and drainageways. Pittsfield soils occupy higher positions. Amenia, Bombay, and Cayuga soils occupy similar positions, but Amenia soils have a higher pH, Bombay soils have a slightly higher clay content in the subsoil, and Cayuga soils are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Georgia: no
Hydrologic group:
  Georgia: A/D

Soil Properties and Qualities

Georgia
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hills, glaciated till plains
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 9 inches: strongly acid to neutral (5.1 to 7.3)
  9 to 15 inches: strongly acid to neutral (5.1 to 7.3)
  15 to 20 inches: strongly acid to neutral (5.1 to 7.3)
  20 to 30 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  30 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
  0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  15 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland

- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

GeC—Georgia loam, 8 to 15 percent slopes

Setting

This soil is loamy, very deep, strongly sloping, and moderately well drained. It is on shoulders and backslopes of glaciated hills and till plains in the Champlain Valley. Areas range from 3 to 50 acres in size.

Map Unit Composition

Major Components
Georgia: 85 percent

Inclusions
Massena: 5 percent
Pittsfield: 3 percent
Amenia: 2 percent
Bombay: 2 percent
Cayuga: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Massena, well drained Pittsfield, Amenia, Bombay, and Cayuga soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Massena soils are on small depressions and drainageways. Pittsfield soils occupy higher positions. Amenia, Bombay, and Cayuga soils occupy similar positions, but Amenia soils have a higher pH; Bombay soils have a slightly higher clay content in the subsoil; and Cayuga soils are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
Georgia: no
Hydrologic group:
Georgia: A/D

Soil Properties and Qualities

Georgia
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low

Surface runoff potential: low
Landform: glaciated hills, glaciated till plains
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
 0 to 9 inches: strongly acid to neutral (5.1 to 7.3)
 9 to 15 inches: strongly acid to neutral (5.1 to 7.3)
 15 to 20 inches: strongly acid to neutral (5.1 to 7.3)
 20 to 30 inches: strongly acid to slightly alkaline (5.1 to 7.8)
 30 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
 0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 15 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 20 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 30 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

GoA—Gougeville mucky loamy fine sand, 0 to 3 percent slopes

Setting

This soil is sandy, very deep, nearly level, and poorly drained. It is on toeslopes of proglacial deltas in the Champlain Valley. Areas range from 3 to 85 acres in size.

Map Unit Composition

Major Components
Gougeville: 85 percent

Inclusions
Stafford: 5 percent
Unnamed: 4 percent
Cosad: 3 percent
Whallonsburg: 2 percent
Sun: 1 percent

The somewhat poorly drained Stafford and Cosad, very poorly drained Whallonsburg, and Sun soils are included in areas of this map unit. Also included are areas of very poorly drained sandy soils. Stafford and Cosad soils occupy higher positions, and Cosad soils are sandy over clayey. Whallonsburg soils occupy slightly lower positions, and are mucky over clayey. Sun soils occupy similar positions, but are loamy and are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
    Gougeville: yes
Hydrologic group:
    Gougeville: A/D

Soil Properties and Qualities

Gougeville
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
    Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
    0 to 6 inches: strongly acid to slightly acid (5.1 to 6.5)
    6 to 12 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    12 to 25 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    25 to 40 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    40 to 58 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    58 to 72 inches: moderately acid to slightly alkaline (5.6 to 7.8)
Permeability:
    0 to 6 inches: moderately rapid (2 to 6 inches/hour)
    6 to 12 inches: rapid (6 to 20 inches/hour)
    12 to 25 inches: rapid (6 to 20 inches/hour)
    25 to 40 inches: rapid (6 to 20 inches/hour)
    40 to 58 inches: moderately rapid or rapid (2 to 20 inches/hour)
    58 to 72 inches: moderately rapid or rapid (2 to 20 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops caused by the seasonal high water table.

Pasture
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Areas of poorly drained and very poorly drained soils should be avoided when locating log landings.

- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

HaB—Hailesboro very fine sandy loam, 3 to 8 percent slopes

Setting

This soil is silty and clayey, very deep, gently sloping, and somewhat poorly drained. It is on footslopes of glacial-valley walls in the Adirondack Upland. Areas range from 3 to 65 acres in size.

Map Unit Composition

Major Components

Hailesboro: 85 percent

Inclusions
Depeyster: 5 percent
Roundabout: 4 percent
Wegatchie: 3 percent
Naumburg: 2 percent
Unnamed: 1 percent

The moderately well drained Depeyster, Roundabout, Naumburg, and poorly drained Wegatchie soils may be included in areas of this map unit. Also included are areas of somewhat poorly drained sandy over clayey soils. Depeyster soils occupy higher positions. Wegatchie soils occupy lower positions. Roundabout and Naumburg soils occupy similar positions, but Roundabout soils are silty; and Naumburg soils are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Hailesboro: no
Hydrologic group:
  Hailesboro: C/D

Soil Properties and Qualities

Hailesboro
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: very high
Landform: glacial-valley walls
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 1 inch: extremely acid to slightly acid (4.0 to 6.5)
  1 to 9 inches: moderately acid to neutral (5.6 to 7.3)
  9 to 17 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  17 to 23 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  23 to 30 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  30 to 44 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  44 to 54 inches: neutral to moderately alkaline (6.6 to 8.4)
  54 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 9 inches: moderate (0.6 to 2 inches/hour)
  9 to 17 inches: moderate (0.6 to 2 inches/hour)
  17 to 23 inches: moderate (0.6 to 2 inches/hour)
  23 to 30 inches: slow to moderate (0.06 to 2 inches/hour)
  30 to 44 inches: slow to moderate (0.06 to 2 inches/hour)
  44 to 54 inches: slow to moderate (0.06 to 2 inches/hour)
  54 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland

- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when

excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

HcB—Howard very cobbly loam, 2 to 8 percent slopes

Setting

These soils are loamy and gravelly, very deep, gently sloping, and well drained. They are on summits and shoulders of kame terraces and outwash terraces in the Champlain Valley. Areas range from 4 to 80 acres in size.

Map Unit Composition

Major Components
Howard: 85 percent

Inclusions
Colonie: 5 percent
Nellis: 4 percent
Chatfield: 2 percent
Pittsfield: 2 percent
Factoryville: 1 percent
Unnamed: 1 percent

The somewhat excessively drained Colonie, Nellis, Chatfield, Pittsfield, and Factoryville soils may be included in areas of this map unit. Also included are areas that have an extremely cobbly surface. Colonie, Nellis, Chatfield, Pittsfield, and Factoryville soils occupy similar positions, but Colonie and Factoryville soils are sandy; Nellis, Chatfield, and Pittsfield soils are loamy; and Chatfield soils are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance

Land capability classification: 3s
Hydric soil rating:
  Howard: no
Hydrologic group:
  Howard: A

Soil Properties and Qualities

Howard
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: kame terraces, outwash terraces
Parent material: gravelly outwash derived from limestone
Reaction (pH):
  0 to 1 inch: extremely acid to slightly acid (4.0 to 6.5)
  1 to 4 inches: strongly acid to neutral (5.1 to 7.3)
  4 to 11 inches: strongly acid to neutral (5.1 to 7.3)
  11 to 15 inches: strongly acid to neutral (5.1 to 7.3)
  15 to 22 inches: strongly acid to neutral (5.1 to 7.3)
  22 to 35 inches: neutral to moderately alkaline (6.6 to 8.4)
  35 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  15 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  22 to 35 inches: very rapid (20 to 100 inches/hour)
  35 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- These soils have no restrictions for commercial woodland use.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- Many large rock fragments in these soils impede workability with heavy equipment during the construction of dwellings with basements. Relocation or removal of rock fragments may significantly increase construction costs.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Many large stones in these soils impede workability with heavy equipment during installation. Relocation or removal of large stones can significantly increase the cost of the system.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

HcC—Howard very cobbly loam, 8 to 15 percent slopes

Setting

These soils are loamy and gravelly, very deep, strongly sloping, and well drained. They are on backslopes of kame terraces and outwash terraces in the Champlain Valley. Areas range from 5 to 85 acres in size

Map Unit Composition

Major Components
Howard: 85 percent

Inclusions
Colonie: 5 percent
Nellis: 4 percent
Chatfield: 2 percent
Pittsfield: 2 percent
Factoryville: 1 percent
Unnamed: 1 percent

The somewhat excessively drained Colonie, Nellis, Chatfield, Pittsfield, and Factoryville soils may be included in areas of this map unit. Also included are areas that have an extremely cobbly surface. Colonie, Nellis, Chatfield, Pittsfield, and Factoryville soils occupy similar positions, but Colonie and Factoryville soils are sandy, Nellis, Chatfield, and Pittsfield soils are loamy, and Chatfield soils are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4s
Hydric soil rating:
    Howard: no

Hydrologic group:
  Howard: A

Soil Properties and Qualities

Howard
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: kame terraces, outwash terraces
Parent material: gravelly outwash derived from limestone
Reaction (pH):
  0 to 1 inch: extremely acid to slightly acid (4.0 to 6.5)
  1 to 4 inches: strongly acid to neutral (5.1 to 7.3)
  4 to 11 inches: strongly acid to neutral (5.1 to 7.3)
  11 to 15 inches: strongly acid to neutral (5.1 to 7.3)
  15 to 22 inches: strongly acid to neutral (5.1 to 7.3)
  22 to 35 inches: neutral to moderately alkaline (6.6 to 8.4)
  35 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  15 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  22 to 35 inches: very rapid (20 to 100 inches/hour)
  35 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.
- Many large rock fragments in these soils impede workability with heavy equipment during the construction of dwellings with basements. Relocation or removal of rock fragments may significantly increase construction costs.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Many large stones in these soils impede workability with heavy equipment during installation. Relocation or removal of large stones can significantly increase the cost of the system.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

HcD—Howard very cobbly loam, 15 to 25 percent slopes

Setting

These soils are loamy and gravelly, very deep, moderately steep, and well drained. They are on backslopes of kame terraces and outwash terraces in the Champlain Valley. Areas range from 5 to 140 acres in size

Map Unit Composition

Major Components
Howard: 85 percent

Inclusions
Colonie: 5 percent
Nellis: 4 percent
Chatfield: 2 percent
Pittsfield: 2 percent
Factoryville: 1 percent
Unnamed: 1 percent

The somewhat excessively drained Colonie, Nellis, Chatfield, Pittsfield, and Factoryville soils may be included in areas of this map unit. Also included are areas that have an extremely cobbly surface. Colonie, Nellis, Chatfield, Pittsfield, and Factoryville soils occupy similar positions, but Colonie and Factoryville soils are sandy; Nellis, Chatfield, and Pittsfield soils are loamy; and Chatfield soils are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Howard: no
Hydrologic group:
  Howard: A

Soil Properties and Qualities

Howard
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Landform: kame terraces, outwash terraces
Parent material: gravelly outwash derived from limestone
Reaction (pH):
  0 to 1 inch: extremely acid to slightly acid (4.0 to 6.5)
  1 to 4 inches: strongly acid to neutral (5.1 to 7.3)
  4 to 11 inches: strongly acid to neutral (5.1 to 7.3)
  11 to 15 inches: strongly acid to neutral (5.1 to 7.3)
  15 to 22 inches: strongly acid to neutral (5.1 to 7.3)
  22 to 35 inches: neutral to moderately alkaline (6.6 to 8.4)
  35 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  15 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  22 to 35 inches: very rapid (20 to 100 inches/hour)
  35 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.

- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.
- Many large rock fragments in these soils impede workability with heavy equipment during the construction of dwellings with basements. Relocation or removal of rock fragments may significantly increase construction costs.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Many large stones in these soils impede workability with heavy equipment during installation. Relocation or removal of large stones can significantly increase the cost of the system.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

HdB—Hartland very fine sandy loam, 2 to 8 percent slopes

Setting

These soils are silty, very deep, gently sloping, and well drained. They are on summits and shoulders of lake plains in the Champlain Valley. Areas range from 3 to 65 acres in size.

Map Unit Composition

Major Components
Hartland: 85 percent

Inclusions
Dunkirk: 5 percent
Collamer: 4 percent
Factoryville: 3 percent
Colonie: 2 percent
Unnamed: 1 percent

The Dunkirk, Factoryville, somewhat excessively drained Colonie, and moderately well drained Collamer soils may be included in areas of this map unit. Also included are small areas of moderately well drained silty soils. Dunkirk, Factoryville, and Colonie soils occupy similar positions, but Dunkirk soils are silty and clayey; and Factoryville and Colonie soils are sandy. Collamer soils occupy slightly lower positions, and are silty and clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Hartland: no
Hydrologic group:
  Hartland: A

Soil Properties and Qualities

Hartland
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: low
Landform: lake plains
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 12 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  12 to 19 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  19 to 30 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  30 to 45 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  45 to 60 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  60 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
  0 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 45 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  45 to 60 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  60 to 72 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The root system of some deep-rooted crops may be damaged by frost action.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland
- These soils have no restrictions for commercial woodland use.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

HgB—Howard gravelly loam, 2 to 8 percent slopes

Setting

These soils are loamy and gravelly, very deep, gently sloping, and well drained. They are on summits and shoulders of kame terraces and outwash terraces in the Champlain Valley. Areas range from 5 to 230 acres in size.

Map Unit Composition

Major Components
Howard: 85 percent

Inclusions
Colonie: 5 percent
Factoryville: 4 percent
Nellis: 2 percent
Pittsfield: 2 percent
Deerfield: 1 percent
Unnamed: 1 percent

The somewhat excessively drained Colonie, Nellis, Chatfield, Pittsfield, and Factoryville soils may be included in areas of this map unit. Also included are areas

that have an extremely cobbly surface. Colonie, Nellis, Chatfield, Pittsfield, and Factoryville soils occupy similar positions, but Colonie and Factoryville soils are sandy; Nellis, Chatfield, and Pittsfield soils are loamy; and Chatfield soils are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 2s
Hydric soil rating:
  Howard: no
Hydrologic group:
  Howard: A

Soil Properties and Qualities

Howard
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: kame terraces, outwash terraces
Parent material: gravelly outwash derived from limestone
Reaction (pH):
  0 to 1 inch: extremely acid to slightly acid (4.0 to 6.5)
  1 to 4 inches: strongly acid to neutral (5.1 to 7.3)
  4 to 11 inches: strongly acid to neutral (5.1 to 7.3)
  11 to 15 inches: strongly acid to neutral (5.1 to 7.3)
  15 to 22 inches: strongly acid to neutral (5.1 to 7.3)
  22 to 35 inches: neutral to moderately alkaline (6.6 to 8.4)
  35 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  15 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  22 to 35 inches: very rapid (20 to 100 inches/hour)
  35 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.

- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- These soils have no restrictions for commercial woodland use.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

HlB—Howard very cobbly fine sandy loam, 2 to 8 percent slopes, loamy substratum

Setting

These soils are loamy and gravelly, very deep, gently sloping, and well drained. They are on summits and shoulders of beach ridges in the Champlain Valley. Areas range from 3 to 185 acres in size.

Map Unit Composition

Major Components
Howard: 85 percent

Inclusions
Colonie: 5 percent
Nellis: 4 percent
Bombay: 3 percent
Cayuga: 2 percent
Unnamed: 1 percent

The somewhat excessively drained Colonie, Nellis, and moderately well drained Bombay and Cayuga soils may be included in areas of this map unit. Also included are areas that have an extremely cobbly surface. Colonie and Nellis soils occupy similar positions, but Colonie soils are sandy, and Nellis soils are loamy. Bombay and Cayuga soils occupy slightly lower positions, Bombay soils are loamy, and Cayuga soils are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Howard: no
Hydrologic group:
  Howard: A

Soil Properties and Qualities

Howard
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: beach ridges
Parent material: gravelly outwash derived from limestone over loamy lodgment till derived from limestone
Reaction (pH):
  0 to 1 inch: extremely acid to slightly acid (4.0 to 6.5)
  1 to 6 inches: strongly acid to neutral (5.1 to 7.3)
  6 to 10 inches: strongly acid to neutral (5.1 to 7.3)
  10 to 13 inches: strongly acid to neutral (5.1 to 7.3)
  13 to 20 inches: strongly acid to neutral (5.1 to 7.3)
  20 to 29 inches: strongly acid to neutral (5.1 to 7.3)
  29 to 33 inches: strongly acid to neutral (5.1 to 7.3)
  33 to 54 inches: neutral to moderately alkaline (6.6 to 8.4)
  54 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
  1 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  6 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  10 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 29 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  29 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  33 to 54 inches: very rapid (20 to 100 inches/hour)
  54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.

Woodland
- These soils have no restrictions for commercial woodland use.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: The HlB, HlC, and HmB map units have textures below 40 inches that are finer than typical for the range of the Howard series. This should not significantly affect use and management on a local basis for most purposes.

HlC—Howard very cobbly fine sandy loam, 8 to 15 percent slopes, loamy substratum

Setting

These soils are loamy and gravelly, very deep, strongly sloping, and well drained. They are on backslopes of beach ridges in the Champlain Valley. Areas range from 3 to 130 acres in size.

Map Unit Composition

Major Components
Howard: 85 percent

Inclusions
Colonie: 5 percent
Nellis: 4 percent
Bombay: 3 percent
Cayuga: 2 percent
Unnamed: 1 percent

The somewhat excessively drained Colonie, Nellis, and moderately well drained Bombay and Cayuga soils may be included in areas of this map unit. Also included are areas that have an extremely cobbly surface. Colonie and Nellis soils occupy similar positions, but Colonie soils are sandy; and Nellis soils are loamy. Bombay and Cayuga soils occupy slightly lower positions; Bombay soils are loamy; and Cayuga soils are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4s

Hydric soil rating:
Howard: no
Hydrologic group:
Howard: A

Soil Properties and Qualities

Howard
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: beach ridges
Parent material: gravelly outwash derived from limestone over loamy lodgment till derived from limestone
Reaction (pH):
0 to 1 inch: extremely acid to slightly acid (4.0 to 6.5)
1 to 6 inches: strongly acid to neutral (5.1 to 7.3)
6 to 10 inches: strongly acid to neutral (5.1 to 7.3)
10 to 13 inches: strongly acid to neutral (5.1 to 7.3)
13 to 20 inches: strongly acid to neutral (5.1 to 7.3)
20 to 29 inches: strongly acid to neutral (5.1 to 7.3)
29 to 33 inches: strongly acid to neutral (5.1 to 7.3)
33 to 54 inches: neutral to moderately alkaline (6.6 to 8.4)
54 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
1 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
10 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 29 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
29 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
33 to 54 inches: very rapid (20 to 100 inches/hour)
54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- Erosion control is needed when pastures are renovated.

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

Correlation Note: The HlB, HlC, and HmB map units have textures below 40 inches that are finer than typical for the range of the Howard series. This should not significantly affect use and management on a local basis for most purposes.

HmB—Howard gravelly fine sandy loam, 2 to 8 percent slopes, loamy substratum

Setting

These soils are loamy and gravelly, very deep, gently sloping, and well drained. They are on summits and shoulders of beach ridges in the Champlain Valley. Areas range from 5 to 105 acres in size.

Map Unit Composition

Major Components
Howard: 85 percent

Inclusions
Colonie: 5 percent
Nellis: 4 percent
Bombay: 3 percent
Cayuga: 2 percent
Unnamed: 1 percent

The somewhat excessively drained Colonie, Nellis, and moderately well drained Bombay and Cayuga soils may be included in areas of this map unit. Also included are areas that have an extremely cobbly surface. Colonie and Nellis soils occupy similar positions, but Colonie soils are sandy; and Nellis soils are loamy. Bombay and Cayuga soils occupy slightly lower positions, Bombay soils are loamy, and Cayuga soils are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 2s
Hydric soil rating:
  Howard: no
Hydrologic group:
  Howard: A

Soil Properties and Qualities

Howard
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: beach ridges
Parent material: gravelly outwash derived from limestone over loamy lodgment till derived from limestone
Reaction (pH):
  0 to 1 inch: extremely acid to slightly acid (4.0 to 6.5)
  1 to 6 inches: strongly acid to neutral (5.1 to 7.3)
  6 to 10 inches: strongly acid to neutral (5.1 to 7.3)
  10 to 13 inches: strongly acid to neutral (5.1 to 7.3)
  13 to 20 inches: strongly acid to neutral (5.1 to 7.3)
  20 to 29 inches: strongly acid to neutral (5.1 to 7.3)
  29 to 33 inches: strongly acid to neutral (5.1 to 7.3)
  33 to 54 inches: neutral to moderately alkaline (6.6 to 8.4)
  54 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
  1 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  6 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  10 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 29 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  29 to 33 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  33 to 54 inches: very rapid (20 to 100 inches/hour)
  54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.

Woodland
- These soils have no restrictions for commercial woodland use.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields

- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: The HlB, HlC, and HmB map units have textures below 40 inches that are finer than typical for the range of the Howard series. This should not significantly affect use and management on a local basis for most purposes.

HnC—Hermon gravelly loamy sand, 8 to 15 percent slopes, very bouldery

Setting

This soil is sandy and gravelly, very deep, strongly sloping, and somewhat excessively drained. It is on summits, shoulders, backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 5 to 65 acres in size.

Map Unit Composition

Major Components

Hermon, very bouldery: 85 percent

Inclusions

Monadnock: 5 percent
Fernlake: 4 percent
Colton: 3 percent
Becket: 2 percent
Sunapee: 1 percent

The well drained Monadnock and Becket, Fernlake, excessively drained Colton, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Monadnock, Becket, Fernlake, and Colton soils occupy similar positions, but Monadnock and Becket soils are loamy; Fernlake soils have less rock fragments; and Colton soils formed in outwash. Sunapee soils occupy slightly lower positions, and are loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland

Land capability classification: 6s
Hydric soil rating:
Hermon, very bouldery: no
Hydrologic group:
Hermon, very bouldery: A

Soil Properties and Qualities

Hermon, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy and gravelly ablation till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
10 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
20 to 29 inches: strongly acid or moderately acid (5.1 to 6.0)
29 to 38 inches: strongly acid or moderately acid (5.1 to 6.0)
38 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
5 to 10 inches: moderately rapid or rapid (2 to 20 inches/hour)
10 to 20 inches: moderately rapid or rapid (2 to 20 inches/hour)
20 to 29 inches: very rapid (20 to 100 inches/hour)
29 to 38 inches: very rapid (20 to 100 inches/hour)
38 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery or extremely stony surface conditions.

- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

HnD—Hermon gravelly loamy sand, 15 to 35 percent slopes, very bouldery

Setting

This soil is sandy and gravelly, very deep, moderately steep and steep, and somewhat excessively drained. It is on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 135 acres in size.

Map Unit Composition

Major Components
Hermon, very bouldery: 85 percent

Inclusions
Monadnock: 5 percent
Fernlake: 4 percent
Colton: 3 percent

Becket: 2 percent
Adams: 1 percent

The well drained Monadnock and Becket, Fernlake, Adams, and excessively drained Colton soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Monadnock, Becket, Fernlake, Adams, and Colton soils occupy similar positions, but Monadnock and Becket soils are loamy, Fernlake soils have less rock fragments, Colton and Adams soils formed in outwash, and Adams soils have little or no rock fragments. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Hermon, very bouldery: no
Hydrologic group:
  Hermon, very bouldery: A

Soil Properties and Qualities

Hermon, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: sandy and gravelly ablation till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
  3 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
  5 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
  10 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
  20 to 29 inches: strongly acid or moderately acid (5.1 to 6.0)
  29 to 38 inches: strongly acid or moderately acid (5.1 to 6.0)
  38 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
  5 to 10 inches: moderately rapid or rapid (2 to 20 inches/hour)
  10 to 20 inches: moderately rapid or rapid (2 to 20 inches/hour)
  20 to 29 inches: very rapid (20 to 100 inches/hour)
  29 to 38 inches: very rapid (20 to 100 inches/hour)
  38 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture

- The slope may restrict the use of most farm equipment.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and re-seeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

HrF—Hogback-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

These soils are loamy and organic, shallow to very shallow, very steep, and well drained to excessively drained. They are on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 5 to 255 acres in size.

Map Unit Composition

Major Components
Hogback, very rocky, very bouldery: 45 percent
Knob Lock, very rocky, very bouldery: 30 percent

Inclusions
Rock outcrop: 9 percent
Rawsonville: 6 percent
Lyman: 4 percent
Mundalite: 3 percent
Unnamed: 3 percent

The Rawsonville, Lyman, and Mundalite soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Rawsonville, Lyman, and Mundalite soils occupy similar positions, but Rawsonville soils are moderately deep to bedrock; Lyman soils have less organic matter; and Mundalite soils are very deep to bedrock. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Hogback, very rocky, very bouldery: no
  Knob Lock, very rocky, very bouldery: no
Hydrologic group:
  Hogback, very rocky, very bouldery: D
  Knob Lock, very rocky, very bouldery: D

Soil Properties and Qualities

Hogback, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss

Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
6 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
14 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 inches, bedrock

Knob Lock, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: non-saturated organic material over loamy till derived from gneiss
Reaction (pH):
0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
7 to 9 inches: extremely acid or very strongly acid (3.5 to 5.0)
9 inches, bedrock
Permeability:
0 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
9 inches, bedrock

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of the slope, the erosion hazard, and the rock outcrops.

Pasture

- These soils are generally not recommended for pasture.

Woodland

- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.

- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

HsD—Hollis-Rock outcrop complex, 15 to 35 percent slopes, very stony

Setting

This map unit consists of areas of exposed bedrock and soils that are loamy, shallow, moderately steep and steep, and well drained. It is on backslopes of glaciated hills in the Champlain Valley. Areas range from 3 to 95 acres in size.

Map Unit Composition

Major Components
Hollis, very stony: 45 percent
Rock outcrop, very stony: 30 percent

Inclusions
Chatfield: 9 percent
Unnamed: 7 percent
Charlton: 4 percent
Pittsfield: 3 percent
Cayuga: 2 percent

The Chatfield, Charlton, Pittsfield, and moderately well drained Cayuga soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Chatfield, Charlton and Pittsfield soils occupy similar positions, but Chatfield soils are moderately deep to bedrock; Charlton and Pittsfield soils are very deep; and Pittsfield soils have a higher pH. Cayuga soils are on benches or drainageways, are very deep, and are clayey over loamy. Included areas make up about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Hollis, very stony: no
  Rock outcrop, very stony: no
Hydrologic group:
  Hollis, very stony: D
  Rock outcrop, very stony: unranked

Soil Properties and Qualities

Hollis, very stony
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 6 inches: very strongly acid to moderately acid (4.5 to 6.0)

6 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
13 inches, bedrock

Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 inches, bedrock

Rock outcrop, very stony

Characteristics not defined for this component.

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the rock outcrops.

Pasture
- The slope may restrict the use of most farm equipment.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

HsF—Hollis-Rock outcrop complex, 35 to 60 percent slopes, very stony

Setting

This map unit consists of areas of exposed bedrock and soils that are loamy, shallow, very steep, and well drained. It is on backslopes of glaciated hills in the Champlain Valley. Areas range from 5 to 480 acres in size.

Map Unit Composition

Major Components
Hollis, very stony: 45 percent
Rock outcrop, very stony: 30 percent

Inclusions
Chatfield: 9 percent
Unnamed: 7 percent
Charlton: 5 percent
Pittsfield: 4 percent

The Chatfield, Charlton, Pittsfield soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Chatfield, Charlton and Pittsfield soils occupy similar positions, but Chatfield soils are moderately deep to bedrock; Charlton and Pittsfield soils are very deep; and Pittsfield soils have a higher pH. Included areas make up about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s

Hydric soil rating:
  Hollis, very stony: no
  Rock outcrop, very stony: no
Hydrologic group:
  Hollis, very stony: D
  Rock outcrop, very stony: unranked

Soil Properties and Qualities

Hollis, very stony
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 6 inches: very strongly acid to moderately acid (4.5 to 6.0)
  6 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
  13 inches, bedrock
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 inches, bedrock

Rock outcrop, very stony
Characteristics not defined for this component.

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope, the erosion hazard, and the rock outcrops.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

KaB—Kalurah silt loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and moderately well drained. It is on footslopes and backslopes of till plains and glaciated hills in the Adirondack Upland. Areas range from 3 to 540 acres in size.

Map Unit Composition

Major Components
Kalurah: 85 percent

Inclusions
Malone: 5 percent
Pyrites: 4 percent
Skerry: 3 percent
Nehasne: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Malone, well drained Pyrites and Nehasne, and Skerry soils may be included in areas of this map unit. Also included are areas with a very stony surface. Malone soils occupy slightly lower positions. Pyrites and Nehasne soils occupy higher positions, and Nehasne soils are moderately deep to bedrock. Skerry soils occupy similar positions, but have a spodic horizon. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Kalurah: no
Hydrologic group:
  Kalurah: A/D

Soil Properties and Qualities

Kalurah
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hills, glaciated till plains
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
  9 to 13 inches: slightly acid or neutral (6.1 to 7.3)
  13 to 22 inches: slightly acid or neutral (6.1 to 7.3)
  22 to 32 inches: slightly acid or neutral (6.1 to 7.3)
  32 to 47 inches: neutral to moderately alkaline (6.6 to 8.4)
  47 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  22 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  32 to 47 inches: slow to moderately rapid (0.06 to 6 inches/hour)
  47 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland

- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Controlling traffic during wet periods can minimize soil compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when

excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

KaC—Kalurah silt loam, 8 to 15 percent slopes

Setting

This soil is loamy, very deep, strongly sloping, and moderately well drained. It is on backslopes of till plains and glaciated hills in the Adirondack Upland. Areas range from 3 to 123 acres in size.

Map Unit Composition

Major Components
Kalurah: 85 percent

Inclusions
Pyrites: 5 percent
Malone: 4 percent
Skerry: 3 percent
Nehasne: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Malone, well drained Pyrites and Nehasne, and Skerry soils may be included in areas of this map unit. Also included are areas with a very stony surface. Malone soils occupy slightly lower positions. Pyrites and Nehasne soils occupy higher positions, and Nehasne soils are moderately deep to bedrock. Skerry soils occupy similar positions, but have a spodic horizon. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Kalurah: no
Hydrologic group:
  Kalurah: >,A

Soil Properties and Qualities

Kalurah
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hills, glaciated till plains
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
  9 to 13 inches: slightly acid or neutral (6.1 to 7.3)
  13 to 22 inches: slightly acid or neutral (6.1 to 7.3)
  22 to 32 inches: slightly acid or neutral (6.1 to 7.3)
  32 to 47 inches: neutral to moderately alkaline (6.6 to 8.4)
  47 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  22 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  32 to 47 inches: slow to moderately rapid (0.06 to 6 inches/hour)
  47 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Controlling traffic during wet periods can minimize soil compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

KgB—Kalurah silt loam, 3 to 8 percent slopes, very stony

Setting

This soil is loamy, very deep, gently sloping, and moderately well drained. It is on footslopes and backslopes of till plains and glaciated hills in the Adirondack Upland. Areas range from 3 to 150 acres in size.

Map Unit Composition

Major Components
Kalurah, very stony: 85 percent

Inclusions
Malone: 5 percent
Pyrites: 4 percent
Skerry: 3 percent
Nehasne: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Malone, well drained Pyrites and Nehasne, and Skerry soils may be included in areas of this map unit. Also included are areas with an extremely stony surface. Malone soils occupy slightly lower positions. Pyrites and Nehasne soils occupy higher positions, and Nehasne soils are moderately deep to bedrock. Skerry soils occupy similar positions, but have a spodic horizon. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Kalurah, very stony: no
Hydrologic group:
  Kalurah, very stony: B

Soil Properties and Qualities

Kalurah, very stony
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very stony
Landform: glaciated hills, glaciated till plains
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
  9 to 13 inches: slightly acid or neutral (6.1 to 7.3)
  13 to 22 inches: slightly acid or neutral (6.1 to 7.3)
  22 to 32 inches: slightly acid or neutral (6.1 to 7.3)
  32 to 47 inches: neutral to moderately alkaline (6.6 to 8.4)
  47 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  22 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  32 to 47 inches: slow to moderately rapid (0.06 to 6 inches/hour)
  47 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of surface stones.

Pasture

- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.

- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

KgC—Kalurah silt loam, 8 to 15 percent slopes, very stony

Setting

This soil is loamy, very deep, strongly sloping, and moderately well drained. It is on backslopes of till plains and glaciated hills in the Adirondack Upland. Areas range from 3 to 105 acres in size.

Map Unit Composition

Major Components
Kalurah, very stony: 85 percent

Inclusions
Pyrites: 5 percent
Malone: 4 percent
Skerry: 3 percent
Nehasne: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Malone, well drained Pyrites and Nehasne, and Skerry soils may be included in areas of this map unit. Also included are areas with an extremely stony surface. Malone soils occupy slightly lower positions. Pyrites and Nehasne soils occupy higher positions, and Nehasne soils are moderately deep to bedrock. Skerry soils occupy similar positions, but have a spodic horizon. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Kalurah, very stony: no
Hydrologic group:
  Kalurah, very stony: A/D

Soil Properties and Qualities

Kalurah, very stony
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate

Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very stony
Landform: glaciated hills, glaciated till plains
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
 0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
 9 to 13 inches: slightly acid or neutral (6.1 to 7.3)
 13 to 22 inches: slightly acid or neutral (6.1 to 7.3)
 22 to 32 inches: slightly acid or neutral (6.1 to 7.3)
 32 to 47 inches: neutral to moderately alkaline (6.6 to 8.4)
 47 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
 0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 13 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 22 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 32 to 47 inches: slow to moderately rapid (0.06 to 6 inches/hour)
 47 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability due to strongly sloping areas.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

KyA—Kingsbury silty clay loam, 0 to 3 percent slopes

Setting

This soil is clayey, very deep, nearly level, and somewhat poorly drained (fig. 20). It is on footslopes of lake plains in the Champlain Valley. Areas range from 3 to 1,340 acres in size.

Map Unit Composition

Major Components
Kingsbury: 85 percent

Inclusions
Covington: 4 percent
Churchville: 3 percent
Cosad: 3 percent

Figure 20.—This photo is a good example of a flat-lying lake plain with Kingsbury silty clay loam soils in the town of Crown Point. These soils have high native fertility but are very clayey, with greater than 60 percent clay in the subsoil, and often 40 to 50 percent clay in the surface. Tillage at the proper moisture content (neither too wet, nor too dry) is essential to maintain good soil structure. Compaction can be a severe problem on these soils. Many of these terraces may be marine (Champlain Sea era) in origin.

Vergennes: 2 percent
Livingston: 1 percent
Niagara: 1 percent
Unnamed: 1 percent

The poorly drained Covington, Churchville, Cosad, Niagara, moderately well drained Vergennes, and very poorly drained Livingston soils may be included in areas of this map unit. Also included are areas of somewhat poorly drained soils that have a slightly lower clay content. Covington and Livingston soils occupy lower positions. Churchville, Cosad, and Niagara soils occupy similar positions, but Churchville soils are clayey over loamy, Cosad soils are sandy over clayey, and Niagara soils are silty and clayey. Vergennes soils occupy higher positions. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
  Kingsbury: no
Hydrologic group:
  Kingsbury: D

Soil Properties and Qualities

Kingsbury
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: 6 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: very high
Surface runoff potential: very high
Landform: lake plains
Parent material: clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 9 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  9 to 14 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  14 to 21 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  21 to 34 inches: moderately alkaline (7.9 to 8.4)
  34 to 65 inches: moderately alkaline (7.9 to 8.4)
  65 to 93 inches: moderately alkaline (7.9 to 8.4)
Permeability:
  0 to 9 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
  9 to 14 inches: very slow or slow (0.001 to 0.2 inches/hour)
  14 to 21 inches: very slow or slow (0.001 to 0.2 inches/hour)
  21 to 34 inches: very slow or slow (0.001 to 0.2 inches/hour)
  34 to 65 inches: impermeable or very slow (0 to 0.06 inches/hour)
  65 to 93 inches: impermeable or very slow (0 to 0.06 inches/hour)

Use and Management

Cropland
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.
- Clods may form if the soil is tilled when wet.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture
- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Limiting log landing and haul road construction and operation activities to dry or frozen ground conditions will help overcome limitations due to clayey soils.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness and clayey soils.

- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The restricted movement of fluids through these soils limits the absorption and proper treatment of the effluent from septic systems. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

KyB—Kingsbury silty clay loam, 3 to 8 percent slopes

Setting

This soil is clayey, very deep, gently sloping, and somewhat poorly drained. It is on footslopes of lake plains in the Champlain Valley. Areas range from 3 to 230 acres in size.

Map Unit Composition

Major Components
Kingsbury: 85 percent

Inclusions
Vergennes: 4 percent
Churchville: 3 percent
Cosad: 3 percent
Covington: 2 percent
Livingston: 1 percent
Niagara: 1 percent
Unnamed: 1 percent

The moderately well drained Vergennes, Churchville, Cosad, Niagara, poorly drained Covington, and very poorly drained Livingston soils may be included in areas of this map unit. Also included are areas of somewhat poorly drained soils that have a slightly lower clay content. Vergennes soils occupy higher positions. Covington and Livingston soils occupy lower positions. Churchville, Cosad, and Niagara soils occupy similar positions, but Churchville soils are clayey over loamy; Cosad soils are sandy over clayey; and Niagara soils are silty and clayey. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
    Kingsbury: no
Hydrologic group:
    Kingsbury: D

Soil Properties and Qualities

Kingsbury
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: very high
Surface runoff potential: very high
Landform: lake plains
Parent material: clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
    0 to 9 inches: strongly acid to slightly alkaline (5.1 to 7.8)
    9 to 14 inches: strongly acid to slightly alkaline (5.1 to 7.8)

14 to 21 inches: strongly acid to slightly alkaline (5.1 to 7.8)
21 to 34 inches: moderately alkaline (7.9 to 8.4)
34 to 65 inches: moderately alkaline (7.9 to 8.4)
65 to 93 inches: moderately alkaline (7.9 to 8.4)

Permeability:
0 to 9 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
9 to 14 inches: very slow or slow (0.001 to 0.2 inches/hour)
14 to 21 inches: very slow or slow (0.001 to 0.2 inches/hour)
21 to 34 inches: very slow or slow (0.001 to 0.2 inches/hour)
34 to 65 inches: impermeable or very slow (0 to 0.06 inches/hour)
65 to 93 inches: impermeable or very slow (0 to 0.06 inches/hour)

Use and Management

Cropland

- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.
- Clods may form if the soil is tilled when wet.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Limiting log landing and haul road construction and operation activities to dry or frozen ground conditions will help overcome limitations caused by clayey soils.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness and clayey soils.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.

- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The restricted movement of fluids through these soils limits the absorption and proper treatment of the effluent from septic systems. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

LnA—Livingston mucky silty clay loam, 0 to 3 percent slopes

Setting

This soil is clayey, very deep, nearly level, and very poorly drained. It is on toeslopes of lake plains in the Champlain Valley. Areas range from 3 to 235 acres in size.

Map Unit Composition

Major Components
Livingston: 85 percent

Inclusions
Covington: 7 percent
Whallonsburg: 5 percent
Kingsbury: 2 percent
Catden: 1 percent

The poorly drained Covington, Whallonsburg, Catden, and somewhat poorly drained Kingsbury soils may be included in areas of this map unit. Also included are areas of very poorly drained soils that have a slightly lower clay content. Covington and Kingsbury soils occupy higher positions. Whallonsburg and Catden soils occupy similar positions, but Whallonsburg soils are mucky over clayey, and Catden soils are very deep muck. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4w
Hydric soil rating:
  Livingston: yes
Hydrologic group:
  Livingston: C/D

Soil Properties and Qualities

Livingston
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: very high
Surface runoff potential: very high
Landform: lake plains
Parent material: clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 9 inches: strongly acid to neutral (5.1 to 7.3)
  9 to 21 inches: strongly acid to neutral (5.1 to 7.3)
  21 to 35 inches: strongly acid to neutral (5.1 to 7.3)
  35 to 46 inches: neutral or slightly alkaline (6.6 to 7.8)
  46 to 56 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
  56 to 72 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
Permeability:
  0 to 9 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
  9 to 21 inches: very slow or slow (0.001 to 0.2 inches/hour)
  21 to 35 inches: very slow or slow (0.001 to 0.2 inches/hour)
  35 to 46 inches: very slow or slow (0.001 to 0.2 inches/hour)
  46 to 56 inches: impermeable or very slow (0 to 0.06 inches/hour)
  56 to 72 inches: impermeable or very slow (0 to 0.06 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture caused by ponding.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Limiting construction activities to dry or frozen ground conditions will help overcome construction limitations of haul roads caused by clayey soils.
- Areas of poorly drained and very poorly drained soils and areas of soils that are subject to ponding should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness and clayey soils.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.

Septic Tank Absorption Fields
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets
- These soils are very limited for local roads and streets caused by the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

LvA—Lovewell very fine sandy loam, 0 to 3 percent slopes

Setting

This soil is silty, very deep, nearly level, and moderately well drained. It is on flood plains in the Adirondack Upland. Areas range from 5 to 80 acres in size.

Map Unit Composition

Major Components
Lovewell: 85 percent

Inclusions
Fluvaquents-Udifluvents: 5 percent
Cornish: 3 percent
Adams: 2 percent
Colton: 2 percent
Medomak: 2 percent
Croghan: 1 percent

The somewhat poorly drained and well drained Fluvaquents-Udifluvents, somewhat poorly drained Cornish, somewhat excessively drained Adams, excessively drained Colton, very poorly drained Medomak, and moderately well drained Croghan soils may be included in areas of this map unit. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Cornish soils occupy slightly lower positions. Adams and Colton soils occupy higher positions, and are sandy and gravelly. Medomak soils are on small depressions. Croghan soils occupy similar positions, but are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Lovewell: no
Hydrologic group:
  Lovewell: B/D

Soil Properties and Qualities

Lovewell
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
  Water table kind: apparent
Flooding: occasional
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low

Surface runoff potential: low
Landform: flood plains
Parent material: silty alluvium derived from gneiss
Reaction (pH):
    0 to 11 inches: very strongly acid to slightly acid (4.5 to 6.5)
    11 to 20 inches: very strongly acid to slightly acid (4.5 to 6.5)
    20 to 30 inches: very strongly acid to slightly acid (4.5 to 6.5)
    30 to 50 inches: very strongly acid to slightly acid (4.5 to 6.5)
    50 to 56 inches: very strongly acid to slightly acid (4.5 to 6.5)
    56 to 75 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 11 inches: moderate (0.6 to 2 inches/hour)
    11 to 20 inches: moderate (0.6 to 2 inches/hour)
    20 to 30 inches: moderate (0.6 to 2 inches/hour)
    30 to 50 inches: moderate (0.6 to 2 inches/hour)
    50 to 56 inches: rapid (6 to 20 inches/hour)
    56 to 75 inches: rapid (6 to 20 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Flooding may delay planting or damage crops in some years.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Conducting road construction and harvesting operations during months of low stream flow, and use of riparian buffers will help overcome construction limitations of haul roads caused by occasional flooding.
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Limiting construction of log landings on occasionally flooded soils, and conducting harvesting operations during months when flooding is least likely to occur will help overcome these limitations. Riparian setbacks should be at least 200 feet.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.

- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

LyD—Lyman-Knob Lock complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

These soils are loamy and organic, shallow to very shallow, moderately steep and steep, and well drained to excessively drained. They are on backslopes of glaciated

hillsides or mountainsides in the Adirondack Upland. Areas range from 3 to 130 acres in size.

Map Unit Composition

Major Components
Lyman, very rocky, very bouldery: 45 percent
Knob Lock, very rocky, very bouldery: 30 percent

Inclusions
Tunbridge: 10 percent
Rock outcrop: 5 percent
Hogback: 3 percent
Becket: 2 percent
Hermon: 2 percent
Monadnock: 2 percent
Unnamed: 1 percent

The Tunbridge, Hogback, Becket, Monadnock, and Hermon soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Tunbridge, Hogback, Becket, Monadnock, and Hermon soils occupy similar positions, but Tunbridge soils are moderately deep to bedrock; Hogback soils have more organic matter than Lyman soils; Becket, Monadnock, and Hermon soils are very deep to bedrock; Monadnock soils are loamy over sandy or gravelly; and Hermon soils are sandy and gravelly. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Lyman, very rocky, very bouldery: no
  Knob Lock, very rocky, very bouldery: no
Hydrologic group:
  Lyman, very rocky, very bouldery: D
  Knob Lock, very rocky, very bouldery: D

Soil Properties and Qualities

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
  0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
  9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)

13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
18 inches, bedrock

Permeability:
0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 inches, bedrock

Knob Lock, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Landform: glaciated hillside or mountainsides
Parent material: non-saturated organic material over loamy till derived from gneiss
Reaction (pH):
0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
7 to 9 inches: extremely acid or very strongly acid (3.5 to 5.0)
9 inches, bedrock

Permeability:
0 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
9 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the rock outcrops.

Pasture
- The slope may restrict the use of most farm equipment.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.

- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

LyF—Lyman-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

These soils are loamy and organic, shallow to very shallow, very steep, and well drained to excessively drained. They are on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 3 to 340 acres in size.

Map Unit Composition

Major Components
Lyman, very rocky, very bouldery: 45 percent
Knob Lock, very rocky, very bouldery: 30 percent

Inclusions
Rock outcrop: 9 percent
Tunbridge: 6 percent
Hogback: 3 percent
Becket: 2 percent
Hermon: 2 percent
Monadnock: 2 percent
Unnamed: 1 percent

The Tunbridge, Hogback, Becket, Monadnock, and Hermon soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Tunbridge, Hogback, Becket, Monadnock, and Hermon soils occupy similar positions, but Tunbridge soils are moderately deep to bedrock; Hogback soils have more organic matter than Lyman soils; Becket, Monadnock, and Hermon soils are very deep to bedrock; Monadnock soils are loamy over sandy or gravelly; and Hermon soils are sandy and gravelly. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Lyman, very rocky, very bouldery: no
  Knob Lock, very rocky, very bouldery: no
Hydrologic group:
  Lyman, very rocky, very bouldery: D
  Knob Lock, very rocky, very bouldery: D

Soil Properties and Qualities

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss

Reaction (pH):
- 0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
- 9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 inches, bedrock

Permeability:
- 0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 inches, bedrock

Knob Lock, very rocky, very bouldery

Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Landform: glaciated hillside or mountainsides
Parent material: non-saturated organic material over loamy till derived from gneiss
Reaction (pH):
- 0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
- 7 to 9 inches: extremely acid or very strongly acid (3.5 to 5.0)
- 9 inches, bedrock

Permeability:
- 0 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
- 9 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope, the erosion hazard, and the rock outcrops.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.

- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

MaB—Malone silt loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and somewhat poorly drained. It is on footslopes and toeslopes of till plains and glaciated hills in the Adirondack Upland. Areas range from 3 to 115 acres in size.

Map Unit Composition

Major Components
Malone: 85 percent

Inclusions
Kalurah: 5 percent
Typic Endoaquolls: 4 percent
Adirondack: 3 percent
Nehasne: 2 percent
Unnamed: 1 percent

The moderately well drained Kalurah, poorly drained Typic Endoquolls, Adirondack, and well drained Nehasne soils may be included in areas of this map unit. Also included are areas with a very stony surface. Kalurah and Nehasne soils occupy higher positions, and Nehasne soils are moderately deep to bedrock. Typic Endoquolls soils occupy lower positions. Adirondack soils occupy similar positions, but have a spodic horizon. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
Malone: no
Hydrologic group:
Malone: B/D

Soil Properties and Qualities

Malone
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: glaciated till plains, glaciated hills
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
0 to 7 inches: moderately acid or slightly acid (5.6 to 6.5)
7 to 12 inches: moderately acid to neutral (5.6 to 7.3)
12 to 17 inches: slightly acid or neutral (6.1 to 7.3)
17 to 25 inches: slightly acid or neutral (6.1 to 7.3)
25 to 72 inches: neutral or slightly alkaline (6.6 to 7.8)

Permeability:
- 0 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 12 to 17 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 17 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 25 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

MbB—Malone silt loam, 3 to 8 percent slopes, very stony

Setting

This soil is loamy, very deep, gently sloping, and somewhat poorly drained. It is on footslopes and toeslopes of till plains and glaciated hills in the Adirondack Upland. Areas range from 3 to 190 acres in size.

Map Unit Composition

Major Components

Malone, very stony: 85 percent

Inclusions

Kalurah: 5 percent
Typic Endoaquolls: 4 percent
Adirondack: 3 percent
Nehasne: 2 percent
Unnamed: 1 percent

The moderately well drained Kalurah, poorly drained Typic Endoquolls, somewhat poorly drained Adirondack, and well drained Nehasne soils may be included in areas of this map unit. Also included are areas with an extremely stony surface. Kalurah and Nehasne soils occupy higher positions, and Nehasne soils are moderately deep to bedrock. Typic Endoquolls soils occupy lower positions. Adirondack soils occupy similar

positions, but have a spodic horizon. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Malone, very stony: no
Hydrologic group:
  Malone, very stony: B/D

Soil Properties and Qualities

Malone, very stony
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated till plains, glaciated hills
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 7 inches: moderately acid or slightly acid (5.6 to 6.5)
  7 to 12 inches: moderately acid to neutral (5.6 to 7.3)
  12 to 17 inches: slightly acid or neutral (6.1 to 7.3)
  17 to 25 inches: slightly acid or neutral (6.1 to 7.3)
  25 to 72 inches: neutral or slightly alkaline (6.6 to 7.8)
Permeability:
  0 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  12 to 17 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  17 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  25 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

McA—Massena gravelly silt loam, 0 to 3 percent slopes

Setting

This soil is loamy, very deep, nearly level, and somewhat poorly drained. It is on footslopes and toeslopes of till plains and drumlinoid ridges in the Champlain Valley. Areas range from 3 to 70 acres in size.

Map Unit Composition

Major Components
Massena: 85 percent

Inclusions
Amenia: 4 percent
Sun: 3 percent
Bombay: 2 percent
Churchville: 2 percent
Georgia: 2 percent
Unnamed: 2 percent

The moderately well drained Amenia, Bombay, and Georgia, poorly drained Sun, and somewhat poorly drained Churchville soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Amenia, Bombay, and Georgia soils occupy higher positions. Sun soils are on small depressions and drainageways. Churchville soils occupy similar positions, but are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
Massena: no
Hydrologic group:
Massena: A/D

Soil Properties and Qualities

Massena
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: till plains, drumlinoid ridges
Parent material: loamy lodgment till derived from limestone
Reaction (pH):
0 to 9 inches: moderately acid to neutral (5.6 to 7.3)

9 to 18 inches: moderately acid to neutral (5.6 to 7.3)
18 to 24 inches: moderately acid to neutral (5.6 to 7.3)
24 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)

Permeability:

0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
24 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland

- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture

- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

McB—Massena gravelly silt loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and somewhat poorly drained. It is on footslopes of till plains and drumlinoid ridges in the Champlain Valley. Areas range from 3 to 115 acres in size.

Map Unit Composition

Major Components
Massena: 85 percent

Inclusions
Amenia: 4 percent
Sun: 3 percent
Bombay: 2 percent
Churchville: 2 percent
Georgia: 2 percent
Unnamed: 2 percent

The moderately well drained Amenia, Bombay, and Georgia, poorly drained Sun, and somewhat poorly drained Churchville soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Amenia, Bombay, and Georgia soils occupy higher positions. Sun soils are on small depressions and drainageways. Churchville soils occupy similar positions, but are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Massena: no
Hydrologic group:
  Massena: A/D

Soil Properties and Qualities

Massena
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: till plains, drumlinoid ridges
Parent material: loamy lodgment till derived from limestone
Reaction (pH):
    0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
    9 to 18 inches: moderately acid to neutral (5.6 to 7.3)
    18 to 24 inches: moderately acid to neutral (5.6 to 7.3)
    24 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
    0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    9 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    18 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    24 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.

- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

MdA—Medomak mucky silt loam, 0 to 3 percent slopes

Setting

This soil is silty, very deep, nearly level, and very poorly drained. It is on flood plains in the Adirondack Upland. Areas range from 5 to 115 acres in size.

Map Unit Composition

Major Components
Medomak: 85 percent

Inclusions
Charles: 5 percent
Burnt Vly: 3 percent
Cornish: 3 percent
Rumney: 3 percent
Fluvaquents-Udifluvents: 1 percent

The poorly drained Charles and Rumney, very poorly drained Burnt Vly, somewhat poorly drained Cornish, and somewhat poorly drained and well drained Fluvaquents-Udifluvents may be included in areas of this map unit. Charles and Rumney soils occupy slightly higher positions, and Rumney soils are loamy. Burnt Vly soils occupy similar positions, but are mucky over sandy. Cornish soils occupy higher positions. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
    Medomak: yes
Hydrologic group:
    Medomak: B/D

Soil Properties and Qualities

Medomak
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
    Water table kind: apparent
Flooding: frequent
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: silty alluvium derived from gneiss
Reaction (pH):
    0 to 1 inch: extremely acid to neutral (3.5 to 7.3)
    1 to 5 inches: extremely acid to neutral (3.5 to 7.3)
    5 to 11 inches: extremely acid to neutral (3.5 to 7.3)
    11 to 20 inches: extremely acid to neutral (3.5 to 7.3)
    20 to 29 inches: extremely acid to neutral (3.5 to 7.3)
    29 to 31 inches: extremely acid to slightly alkaline (3.5 to 7.8)
    31 to 41 inches: extremely acid to slightly alkaline (3.5 to 7.8)
    41 to 48 inches: extremely acid to slightly alkaline (3.5 to 7.8)
    48 to 72 inches: extremely acid to slightly alkaline (3.5 to 7.8)
Permeability:
    0 to 1 inch: moderately slow to rapid (0.2 to 20 inches/hour)
    1 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    20 to 29 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    29 to 31 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

31 to 41 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
41 to 48 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
48 to 72 inches: moderate to rapid (0.6 to 20 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture due to ponding.

Woodland
- Avoiding construction of haul roads in frequently flooded areas is recommended.
- Avoiding construction of log landings on frequently flooded soils is recommended.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.

Septic Tank Absorption Fields
- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets
- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: The MdA map unit is a taxadjunct to the Medomak series because the pedon qualifies as having a mollic epipedon in the Ap horizon and is a Mollisols. The classification of the taxadjunct is Coarse-silty, mixed, superactive, frigid Fluvaquentic Endoaquolls. The classification of the Medomak series is Coarse-silty, mixed, superactive, nonacid, frigid Fluvaquentic Humaquepts. This should not significantly affect use and management on a local basis for most purposes.

MhB—Monadnock fine sandy loam, 3 to 8 percent slopes

Setting

This soil is loamy over sandy or gravelly, very deep, gently sloping, and well drained (fig. 21). It is on summits and shoulders of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 330 acres in size.

Map Unit Composition

Major Components
Monadnock: 85 percent

Inclusions
Becket: 5 percent
Fernlake: 3 percent
Sunapee: 3 percent
Adams: 2 percent
Pyrities: 2 percent

The Becket, Pyrities, somewhat excessively drained Fernlake and Adams, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Becket, Pyrities, Fernlake, and Adams soils occupy similar positions, but Becket soils have a dense substratum; Pyrities soils lack a spodic horizon and have a higher pH; Fernlake soils are sandy; and Adams soils are sandy and have little or no rock fragments. Sunapee soils occupy slightly lower positions. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Monadnock: no
Hydrologic group:
  Monadnock: A

Soil Properties and Qualities

Monadnock
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches

Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
 3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
 12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
 19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
 30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
 37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
 37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland

- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.

Figure 21.—This oblique aerial view shows the till plain south of Lake Placid Village where most of the seed potato farming in the county occurs. The majority of the cropland is in the non-bouldery phase of the Monadnock soils. Boulders and stones have been removed from the surface during clearing and over the years during tillage operations. These soils have low native fertility, but because of cool and acidic conditions, they are favorable for production of certified, rust-free, seed potatoes.

- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- These soils have no restrictions for commercial woodland use.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

MhC—Monadnock fine sandy loam, 8 to 15 percent slopes

Setting

This soil is loamy over sandy or gravelly, very deep, strongly sloping, and well drained. It is on shoulders and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 110 acres in size.

Map Unit Composition

Major Components
Monadnock: 85 percent

Inclusions
Becket: 5 percent
Fernlake: 3 percent
Sunapee: 3 percent
Adams: 2 percent
Pyrities: 2 percent

The Becket, Pyrities, somewhat excessively drained Fernlake and Adams, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Becket, Pyrities, Fernlake, and Adams soils occupy similar positions, but Becket soils have a dense substratum; Pyrities soils lack a spodic horizon and have a higher pH; Fernlake soils are sandy, and Adams soils are sandy and have little or no rock fragments. Sunapee soils occupy slightly lower positions. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Monadnock: no
Hydrologic group:
  Monadnock: A

Soil Properties and Qualities

Monadnock
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
  12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
  19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
  30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
  37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.

- Erosion control is needed when pastures are renovated.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

MkB—Monadnock fine sandy loam, 3 to 8 percent slopes, very bouldery

Setting

This soil is loamy over sandy or gravelly, very deep, gently sloping, and well drained. It is on summits and shoulders of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 200 acres in size.

Map Unit Composition

Major Components
Monadnock, very bouldery: 85 percent

Inclusions
Becket: 5 percent
Fernlake: 3 percent
Sunapee: 3 percent
Adams: 2 percent
Pyrities: 2 percent

The Becket, Pyrities, somewhat excessively drained Fernlake and Adams, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Pyrities, Fernlake, and Adams soils occupy similar positions, but Becket soils have a dense substratum; Pyrities soils lack a spodic horizon and have a higher pH; Fernlake soils are sandy; and Adams soils are sandy and have little or no rock fragments. Sunapee soils occupy slightly lower positions. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Monadnock, very bouldery: no
Hydrologic group:
    Monadnock, very bouldery: A

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
    3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
    12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
    19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
    30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
    37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
    0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
    2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
    37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.

- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

MkC—Monadnock fine sandy loam, 8 to 15 percent slopes, very bouldery

Setting

This soil is loamy over sandy or gravelly, very deep, strongly sloping, and well drained. It is on shoulders and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 510 acres in size.

Map Unit Composition

Major Components
Monadnock, very bouldery: 85 percent

Inclusions
Becket: 5 percent
Fernlake: 3 percent
Sunapee: 3 percent
Adams: 2 percent
Pyrities: 2 percent

The Becket, Pyrities, somewhat excessively drained Fernlake and Adams, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Pyrities, Fernlake, and Adams soils occupy similar positions, but Becket soils have a dense substratum, Pyrities soils lack a spodic horizon and have a higher pH, Fernlake soils are sandy, and Adams soils are sandy and have little or no rock fragments. Sunapee soils occupy slightly lower positions. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Monadnock, very bouldery: no
Hydrologic group:
    Monadnock, very bouldery: A

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
    3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
    12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
    19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
    30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
    37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
    0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
    2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
    37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

MkD—Monadnock fine sandy loam, 15 to 35 percent slopes, very bouldery

Setting

This soil is loamy over sandy or gravelly, very deep, moderately steep and steep, and well drained. It is on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 185 acres in size.

Map Unit Composition

Major Components
Monadnock, very bouldery: 85 percent

Inclusions
Becket: 5 percent
Adams: 3 percent
Fernlake: 3 percent
Pyrities: 3 percent
Sunapee: 1 percent

The Becket, Pyrities, somewhat excessively drained Fernlake and Adams, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Pyrities, Fernlake, and Adams soils occupy similar positions, but Becket soils have a dense substratum; Pyrities soils lack a spodic horizon and have a higher pH; Fernlake soils are sandy; and Adams soils are sandy and have little or no rock fragments. Sunapee soils are on drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
 Monadnock, very bouldery: no
Hydrologic group:
 Monadnock, very bouldery: A

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss

Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
- 12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
- 19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
- 30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
- 37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- The slope may restrict the use of most farm equipment.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

MkF—Monadnock fine sandy loam, 35 to 60 percent slopes, very bouldery

Setting

This soil is loamy over sandy or gravelly, very deep, very steep, and well drained. It is on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 40 acres in size.

Map Unit Composition

Major Components
Monadnock, very bouldery: 85 percent

Inclusions
Becket: 5 percent
Adams: 3 percent
Fernlake: 3 percent
Pyrities: 3 percent
Sunapee: 1 percent

The Becket, Pyrities, somewhat excessively drained Fernlake and Adams, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Pyrities, Fernlake, and Adams soils occupy similar positions, but Becket soils have a dense substratum; Pyrities soils lack a spodic horizon and have a higher pH; Fernlake soils are sandy;

and Adams soils are sandy and have little or no rock fragments. Sunapee soils are on drainageways. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
Monadnock, very bouldery: no
Hydrologic group:
Monadnock, very bouldery: A

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones, and the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.

- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

MmF—Monadnock-Adams complex, 25 to 60 percent slopes, bouldery

Setting

These soils are loamy over sandy or gravelly, and sandy, very deep, very steep, and well drained. They are on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 5 to 325 acres in size.

Map Unit Composition

Major Components
Monadnock, very bouldery: 55 percent
Adams: 25 percent

Inclusions
Colton: 7 percent
Fernlake: 7 percent
Becket: 6 percent

The excessively drained Colton, Fernlake, and Becket soils may be included in areas of this map unit. Also included are areas that have a very bouldery surface. Colton, Fernlake, and Becket soils occupy similar positions, but Colton soils are sandy and gravelly; Fernlake soils are sandy till; and Becket soils have a dense substratum. Included areas can occupy about 20 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Monadnock, bouldery: no
  Adams: no
Hydrologic group:
  Monadnock, bouldery: A
  Adams: A

Soil Properties and Qualities

Monadnock, bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
  12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
  19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
  30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
  37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hillside or mountainsides
Parent material: sandy glaciofluvial deposits derived from gneiss
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 8 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 14 to 23 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 23 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 5 to 8 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 8 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 14 to 23 inches: moderately rapid to very rapid (2 to 100 inches/hour)
- 23 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The excessive rate of fluid movement through these soils in some areas limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

MnC—Monadnock-Tunbridge complex, 8 to 15 percent slopes, rocky, very bouldery

Setting

These soils are loamy over sandy and gravelly, and loamy, very deep and moderately deep, strongly sloping, and well drained. They are on backslopes and shoulders of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 620 acres in size.

Map Unit Composition

Major Components
Monadnock, rocky, very bouldery: 45 percent
Tunbridge, rocky, very bouldery: 30 percent

Inclusions
Becket: 8 percent
Lyman: 7 percent
Sunapee: 5 percent
Knob Lock: 3 percent
Rock outcrop: 2 percent

The Becket, Lyman, Knob Lock, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Lyman, and Knob Lock soils occupy similar positions, but Becket soils have a dense substratum; Lyman soils are shallow to bedrock; and Knob Lock soils are shallow to very shallow to bedrock, and are organic. Sunapee soils occupy slightly

lower positions than Monadnock soils. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Monadnock, rocky, very bouldery: no
  Tunbridge, rocky, very bouldery: no
Hydrologic group:
  Monadnock, rocky, very bouldery: A
  Tunbridge, rocky, very bouldery: B

Soil Properties and Qualities

Monadnock, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
  12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
  19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
  30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
  37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Tunbridge, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides

Parent material: loamy till derived from gneiss
Reaction (pH):
 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
 4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
 7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
 18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
 27 inches, bedrock
Permeability:
 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 27 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

MnD—Monadnock-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

These soils are loamy over sandy and gravelly, and loamy, very deep and moderately deep, moderately steep and steep, and well drained. They are on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 350 acres in size.

Map Unit Composition

Major Components
Monadnock, rocky, very bouldery: 45 percent
Tunbridge, rocky, very bouldery: 30 percent

Inclusions
Becket: 8 percent

Lyman: 7 percent
Rock outcrop: 5 percent
Knob Lock: 3 percent
Sunapee: 2 percent

The Becket, Lyman, Knob Lock, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Becket, Lyman, and Knob Lock soils occupy similar positions, but Becket soils have a dense substratum; Lyman soils are shallow to bedrock; and Knob Lock soils are shallow to very shallow to bedrock, and are organic. Sunapee soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Monadnock, rocky, very bouldery: no
  Tunbridge, rocky, very bouldery: no
Hydrologic group:
  Monadnock, rocky, very bouldery: A
  Tunbridge, rocky, very bouldery: B

Soil Properties and Qualities

Monadnock, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
  12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
  19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
  30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
  37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Tunbridge, rocky, very bouldery
Drainage class: well drained

Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
- 7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
- 27 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- The slope may restrict the use of most farm equipment.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Locating haul roads on soils that are deeper to bedrock, or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations due to moderately deep soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.

- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

MnF—Monadnock-Tunbridge complex, 35 to 60 percent slopes, rocky, very bouldery

Setting

These soils are loamy over sandy and gravelly, and loamy, very deep and moderately deep, very steep, and well drained. They are on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 300 acres in size.

Map Unit Composition

Major Components
Monadnock, rocky, very bouldery: 45 percent
Tunbridge, rocky, very bouldery: 30 percent

Inclusions
Becket: 8 percent
Lyman: 7 percent
Rock outcrop: 5 percent
Knob Lock: 3 percent
Sunapee: 2 percent

The Becket, Lyman, Knob Lock, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Becket, Lyman, and Knob Lock soils occupy similar positions, but Becket soils have a dense substratum; Lyman soils are shallow to bedrock; and Knob Lock soils are shallow to very shallow to bedrock, and are organic. Sunapee soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Monadnock, rocky, very bouldery: no
  Tunbridge, rocky, very bouldery: no
Hydrologic group:
  Monadnock, rocky, very bouldery: A
  Tunbridge, rocky, very bouldery: B

Soil Properties and Qualities

Monadnock, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till over sandy ablation till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)

3 to 12 inches: extremely acid to moderately acid (3.5 to 6.0)
12 to 19 inches: extremely acid to moderately acid (3.5 to 6.0)
19 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
30 to 37 inches: extremely acid to moderately acid (3.5 to 6.0)
37 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability:
0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 37 inches: moderately rapid to very rapid (2 to 100 inches/hour)
37 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Tunbridge, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
27 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones, and the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.

- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

MoA—Mooers loamy fine sand, 0 to 3 percent slopes

Setting

This soil is sandy, very deep, nearly level, and moderately well drained. It is on footslopes of deltas, outwash plains, and stream terraces in the Adirondack Upland. Areas range from 3 to 125 acres in size.

Map Unit Composition

Major Components
Mooers: 85 percent

Inclusions
Champlain: 5 percent
Nicholville: 4 percent
Croghan: 3 percent
Unnamed: 2 percent
Sunapee: 1 percent

The somewhat excessively drained Champlain, Nicholville, Croghan, and Sunapee soils may be included in areas of this map unit. Also included are small areas of somewhat poorly drained sandy soils that lack a spodic horizon. Champlain soils occupy higher positions. Nicholville, Croghan, and Sunapee soils occupy similar positions, but Nicholville soils are silty. Sunapee soils are loamy, and all three have a spodic horizon. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Mooers: no
Hydrologic group:
  Mooers: A/D

Soil Properties and Qualities

Mooers
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: proglacial deltas, proglacial outwash plains, proglacial stream terraces
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock

Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 4 inches: strongly acid to slightly acid (5.1 to 6.5)
- 4 to 16 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 16 to 22 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 22 to 42 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 42 to 58 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 58 to 72 inches: moderately acid to slightly alkaline (5.6 to 7.8)

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 4 inches: rapid (6 to 20 inches/hour)
- 4 to 16 inches: rapid (6 to 20 inches/hour)
- 16 to 22 inches: rapid (6 to 20 inches/hour)
- 22 to 42 inches: rapid (6 to 20 inches/hour)
- 42 to 58 inches: rapid (6 to 20 inches/hour)
- 58 to 72 inches: rapid (6 to 20 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.

MuC—Mundalite fine sandy loam, 8 to 15 percent slopes, very bouldery

Setting

This soil is loamy, very deep, strongly sloping, and well drained. It is on shoulders and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 5 to 375 acres in size.

Map Unit Composition

Major Components
Mundalite, very bouldery: 85 percent

Inclusions
Ampersand: 5 percent
Rawsonville: 4 percent
Becket: 3 percent
Unnamed: 3 percent

The somewhat poorly drained Ampersand, Rawsonville, and Becket soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Ampersand soils occupy lower positions. Rawsonville and Becket soils occupy similar positions, but Rawsonville soils are moderately deep to bedrock, and Becket

soils have less organic matter in the subsoil. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Mundalite, very bouldery: no
Hydrologic group:
  Mundalite, very bouldery: C

Soil Properties and Qualities

Mundalite, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 25 to 40 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
  14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
  27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
  37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
  1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

MuD—Mundalite fine sandy loam, 15 to 35 percent slopes, very bouldery

Setting

This soil is loamy, very deep, moderately steep and steep, and well drained. It is on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 5 to 140 acres in size.

Map Unit Composition

Major Components
Mundalite, very bouldery: 85 percent

Inclusions
Rawsonville: 5 percent
Ampersand: 4 percent
Becket: 3 percent
Unnamed: 3 percent

The somewhat poorly drained Ampersand, Rawsonville, and Becket soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Ampersand soils occupy lower positions. Rawsonville and Becket soils occupy similar positions, but Rawsonville soils are moderately deep to bedrock; and Becket soils have less organic matter in the subsoil. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Mundalite, very bouldery: no
Hydrologic group:
  Mundalite, very bouldery: C

Soil Properties and Qualities

Mundalite, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 25 to 40 inches
  Water table kind: perched
Flooding: none

Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture

- The slope may restrict the use of most farm equipment.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness.
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.

- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

MwC—Mundalite-Rawsonville complex, 3 to 15 percent slopes, rocky, very bouldery

Setting

These soils are loamy, very deep and moderately deep, strongly sloping, and well drained. They are on backslopes and shoulders of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 55 acres in size.

Map Unit Composition

Major Components
Mundalite, rocky, very bouldery: 45 percent
Rawsonville, rocky, very bouldery: 30 percent

Inclusions
Ampersand: 5 percent
Becket: 5 percent
Hogback: 5 percent
Knob Lock: 5 percent
Unnamed: 4 percent
Rock outcrop: 1 percent

The somewhat poorly drained Ampersand, Becket, Hogback, and Knob Lock soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Ampersand soils occupy lower positions than Mundalite soils. Becket, Hogback, and Knob Lock soils occupy similar positions, but Becket soils have less organic matter in the subsoil; Hogback soils are shallow to bedrock; and Knob Lock soils are shallow and very shallow to bedrock and are organic. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Mundalite, rocky, very bouldery: no
  Rawsonville, rocky, very bouldery: no
Hydrologic group:
  Mundalite, rocky, very bouldery: C
  Rawsonville, rocky, very bouldery: B

Soil Properties and Qualities

Mundalite, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 25 to 40 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides

Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Rawsonville, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)
20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
25 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
25 inches, bedrock

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture

- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

MwD—Mundalite-Rawsonville complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

These soils are loamy, very deep and moderately deep, moderately steep and steep, and well drained. They are on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 10 to 235 acres in size.

Map Unit Composition

Major Components
Mundalite, rocky, very bouldery: 45 percent
Rawsonville, rocky, very bouldery: 30 percent

Inclusions
Becket: 5 percent
Hogback: 5 percent
Knob Lock: 5 percent
Rock outcrop: 5 percent

Unnamed: 4 percent
Ampersand: 1 percent

The Becket, Hogback, Knob Lock, and somewhat poorly drained Ampersand soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Becket, Hogback, and Knob Lock soils occupy similar positions, but Becket soils have less organic matter in the subsoil; Hogback soils are shallow to bedrock; and Knob Lock soils are shallow and very shallow to bedrock and are organic. Ampersand soils occupy lower positions than Mundalite soils. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Mundalite, rocky, very bouldery: no
  Rawsonville, rocky, very bouldery: no
Hydrologic group:
  Mundalite, rocky, very bouldery: C
  Rawsonville, rocky, very bouldery: B

Soil Properties and Qualities

Mundalite, rocky, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 25 to 40 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
  14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
  27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
  37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
  1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Rawsonville, rocky, very bouldery
Drainage class: well drained

Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
- 5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
- 11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)
- 20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
- 25 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 25 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- The slope may restrict the use of most farm equipment.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Locating haul roads on soils that are deeper to bedrock, or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.

- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.

- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

NaA—Naumburg loamy fine sand, 0 to 3 percent slopes

Setting

This soil is sandy, very deep, nearly level, and somewhat poorly drained. It is on footslopes of deltas, outwash plains, and stream terraces in the Adirondack Upland. Areas range from 3 to 105 acres in size.

Map Unit Composition

Major Components
Naumburg: 85 percent

Inclusions
Searsport: 5 percent
Croghan: 4 percent
Roundabout: 3 percent
Tahawus: 2 percent
Unnamed: 1 percent

The very poorly drained Searsport and Tahawus, moderately well drained Croghan, and Roundabout soils may be included in areas of this map unit. Also included are small areas of poorly drained sandy soils. Searsport and Tahawus soils occupy lower positions, and Tahawus soils are underlain by till. Croghan soils occupy higher positions. Roundabout soils occupy similar positions, but are silty. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
    Naumburg: no
Hydrologic group:
    Naumburg: A/D

Soil Properties and Qualities

Naumburg

Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Landform: deltas, outwash plains, stream terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 7 inches: extremely acid to strongly acid (3.5 to 5.5)
  7 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
  10 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
  18 to 31 inches: extremely acid to strongly acid (3.5 to 5.5)
  31 to 54 inches: very strongly acid to slightly acid (4.5 to 6.5)
  54 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  2 to 7 inches: rapid (6 to 20 inches/hour)
  7 to 10 inches: rapid (6 to 20 inches/hour)
  10 to 18 inches: rapid (6 to 20 inches/hour)
  18 to 31 inches: rapid (6 to 20 inches/hour)
  31 to 54 inches: rapid or very rapid (6 to 100 inches/hour)
  54 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- These soils are well suited to pasture.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.

- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

NeB—Nellis fine sandy loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and well drained. It is on summits, shoulders, and backslopes of drumlinoid ridges in the Champlain Valley. Areas range from 3 to 70 acres in size.

Map Unit Composition

Major Components
Nellis: 85 percent

Inclusions
Amenia: 5 percent
Massena: 3 percent
Bombay: 2 percent
Unnamed: 2 percent
Cayuga: 1 percent
Howard: 1 percent
Pittsfield: 1 percent

The moderately well drained Amenia, Bombay, and Cayuga, somewhat poorly drained Massena, somewhat excessively drained Howard, and Pittsfield soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Amenia, Bombay, and Cayuga soils occupy slightly lower positions; Bombay soils have slightly higher clay content in the subsoil; and Cayuga soils are clayey over loamy. Massena soils are on small depressions and drainageways. Howard and Pittsfield soils occupy similar positions, but Howard soils are loamy and gravelly, and Pittsfield soils have a lower pH. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Nellis: no
Hydrologic group:
  Nellis: A

Soil Properties and Qualities

Nellis
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: drumlinoid ridges
Parent material: loamy lodgment till derived from limestone
Reaction (pH):
  0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
  9 to 16 inches: moderately acid to neutral (5.6 to 7.3)
  16 to 21 inches: moderately acid to neutral (5.6 to 7.3)
  21 to 26 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  26 to 37 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  37 to 60 inches: neutral to moderately alkaline (6.6 to 8.4)
  60 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 16 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

16 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
21 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
26 to 37 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
37 to 60 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
60 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- These soils have no restrictions for commercial woodland use.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

NeC—Nellis fine sandy loam, 8 to 15 percent slopes

Setting

This soil is loamy, very deep, strongly sloping, and well drained. It is on shoulders and backslopes of drumlinoid ridges in the Champlain Valley. Areas range from 3 to 150 acres in size.

Map Unit Composition

Major Components
Nellis: 85 percent

Inclusions
Amenia: 5 percent
Pittsfield: 3 percent
Bombay: 2 percent

Unnamed: 2 percent
Cayuga: 1 percent
Howard: 1 percent
Massena: 1 percent

The moderately well drained Amenia, Bombay, and Cayuga, somewhat poorly drained Massena, somewhat excessively drained Howard, and Pittsfield soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Amenia, Bombay, and Cayuga soils occupy slightly lower positions; Bombay soils have slightly higher clay content in the subsoil; and Cayuga soils are clayey over loamy. Massena soils are on drainageways. Howard and Pittsfield soils occupy similar positions, but Howard soils are loamy and gravelly, and Pittsfield soils have a lower pH. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Nellis: no
Hydrologic group:
  Nellis: A

Soil Properties and Qualities

Nellis
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Landform: drumlinoid ridges
Parent material: loamy lodgment till derived from limestone
Reaction (pH):
  0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
  9 to 16 inches: moderately acid to neutral (5.6 to 7.3)
  16 to 21 inches: moderately acid to neutral (5.6 to 7.3)
  21 to 26 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  26 to 37 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  37 to 60 inches: neutral to moderately alkaline (6.6 to 8.4)
  60 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 16 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  16 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  21 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  26 to 37 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  37 to 60 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  60 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

NeD—Nellis fine sandy loam, 15 to 25 percent slopes

Setting

This soil is loamy, very deep, moderately steep, and well drained. It is on backslopes of drumlinoid ridges in the Champlain Valley. Areas range from 3 to 75 acres in size.

Map Unit Composition

Major Components
Nellis: 85 percent

Inclusions
Pittsfield: 5 percent
Unnamed: 4 percent
Howard: 3 percent
Cayuga: 2 percent
Amenia: 1 percent

The Pittsfield, somewhat excessively drained Howard, and moderately well drained Cayuga and Amenia soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Howard and Pittsfield soils occupy similar positions, but Howard soils are loamy and gravelly, and Pittsfield soils have a lower pH.

Amenia and Cayuga soils occupy slightly lower positions, and Cayuga soils are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
Nellis: no
Hydrologic group:
Nellis: A

Soil Properties and Qualities

Nellis
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Landform: drumlinoid ridges
Parent material: loamy lodgment till derived from limestone
Reaction (pH):
0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
9 to 16 inches: moderately acid to neutral (5.6 to 7.3)
16 to 21 inches: moderately acid to neutral (5.6 to 7.3)
21 to 26 inches: moderately acid to slightly alkaline (5.6 to 7.8)
26 to 37 inches: moderately acid to slightly alkaline (5.6 to 7.8)
37 to 60 inches: neutral to moderately alkaline (6.6 to 8.4)
60 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 16 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
16 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
21 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
26 to 37 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
37 to 60 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
60 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.

- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

NgA—Niagara silt loam, 0 to 3 percent slopes

Setting

This soil is silty and clayey, very deep, nearly level, and somewhat poorly drained. It is on footslopes of lake plains in the Champlain Valley. Areas range from 3 to 90 acres in size.

Map Unit Composition

Major Components
Niagara: 85 percent

Inclusions
Covington: 5 percent
Collamer: 4 percent
Cosad: 3 percent
Tonawanda: 2 percent
Churchville: 1 percent

The poorly drained Covington, moderately well drained Collamer, Cosad, Tonawanda, and Churchville soils may be included in areas of this map unit. Also included are areas that have a slightly higher clay content. Covington soils occupy slightly lower positions and are clayey. Collamer soils occupy higher positions. Cosad, Tonawanda, and Churchville soils occupy similar positions, but Cosad soils are sandy over clayey, Tonawanda soils are silty, and Churchville soils are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
    Niagara: no
Hydrologic group:
    Niagara: C/D

Soil Properties and Qualities

Niagara
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: very high
Landform: lake plains
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
    0 to 9 inches: strongly acid to neutral (5.1 to 7.3)
    9 to 12 inches: strongly acid to neutral (5.1 to 7.3)
    12 to 18 inches: strongly acid to neutral (5.1 to 7.3)
    18 to 35 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    35 to 48 inches: neutral to moderately alkaline (6.6 to 8.4)
    48 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
    0 to 9 inches: moderately slow or moderate (0.2 to 2 inches/hour)
    9 to 12 inches: moderately slow or moderate (0.2 to 2 inches/hour)
    12 to 18 inches: moderately slow or moderate (0.2 to 2 inches/hour)
    18 to 35 inches: slow to moderate (0.06 to 2 inches/hour)
    35 to 48 inches: slow to moderate (0.06 to 2 inches/hour)
    48 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture
- These soils are well suited to pasture.

- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The potential for shrink-swell in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

NgB—Niagara silt loam, 3 to 8 percent slopes

Setting

This soil is silty and clayey, very deep, gently sloping, and somewhat poorly drained. It is on footslopes of lake plains in the Champlain Valley. Areas range from 4 to 60 acres in size.

Map Unit Composition

Major Components
Niagara: 85 percent

Inclusions
Collamer: 5 percent
Covington: 4 percent
Cosad: 3 percent
Tonawanda: 2 percent
Churchville: 1 percent

The moderately well drained Collamer, poorly drained Covington, Cosad, Tonawanda, and Churchville soils may be included in areas of this map unit. Collamer soils occupy higher positions. Covington soils occupy slightly lower positions and are clayey. Cosad, Tonawanda, and Churchville soils occupy similar positions, but Cosad soils are sandy over clayey; Tonawanda soils are silty; and Churchville soils are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Niagara: no
Hydrologic group:
  Niagara: C/D

Soil Properties and Qualities

Niagara
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: apparent
Flooding: none

Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: very high
Landform: lake plains
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
- 0 to 9 inches: strongly acid to neutral (5.1 to 7.3)
- 9 to 12 inches: strongly acid to neutral (5.1 to 7.3)
- 12 to 18 inches: strongly acid to neutral (5.1 to 7.3)
- 18 to 35 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 35 to 48 inches: neutral to moderately alkaline (6.6 to 8.4)
- 48 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)

Permeability:
- 0 to 9 inches: moderately slow or moderate (0.2 to 2 inches/hour)
- 9 to 12 inches: moderately slow or moderate (0.2 to 2 inches/hour)
- 12 to 18 inches: moderately slow or moderate (0.2 to 2 inches/hour)
- 18 to 35 inches: slow to moderate (0.06 to 2 inches/hour)
- 35 to 48 inches: slow to moderate (0.06 to 2 inches/hour)
- 48 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to

them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The potential for shrink-swell in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

NvB—Nicholville silt loam, 3 to 8 percent slopes

Setting

This soil is silty, very deep, gently sloping, and moderately well drained. It is on backslopes and footslopes of glacial valley walls in the Adirondack Upland. Areas range from 3 to 70 acres in size.

Map Unit Composition

Major Components
Nicholville: 85 percent

Inclusions
Roundabout: 4 percent
Depeyster: 3 percent
Champlain: 2 percent
Fernlake: 2 percent
Hailesboro: 2 percent
Unnamed: 2 percent

The somewhat poorly drained Roundabout and Hailesboro, Depeyster, and somewhat excessively drained Champlain and Fernlake soils may be included in areas of this map unit. Also included are small areas of well drained silty soils. Roundabout and Hailesboro soils occupy slightly lower positions, and Hailesboro soils are silty and clayey. Depeyster soils occupy similar positions, but are silty and clayey. Champlain and Fernlake soils occupy higher positions, both are sandy, and Fernlake soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Nicholville: no
Hydrologic group:
  Nicholville: A/D

Soil Properties and Qualities

Nicholville
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: glacial-valley walls
Parent material: silty glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 1 inch: extremely acid to slightly acid (4.0 to 6.5)
  1 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
  6 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
  7 to 12 inches: very strongly acid to moderately acid (4.5 to 6.0)
  12 to 20 inches: very strongly acid to moderately acid (4.5 to 6.0)
  20 to 25 inches: very strongly acid to neutral (4.5 to 7.3)
  25 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
  38 to 54 inches: very strongly acid to neutral (4.5 to 7.3)
  54 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

6 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
12 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
25 to 38 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
38 to 54 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
54 to 72 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

OmA—Occum fine sandy loam, 0 to 3 percent slopes

Setting

This soil is loamy, very deep, nearly level, and well drained. It is on flood plains in the Champlain Valley (fig. 22). Areas range from 3 to 75 acres in size.

Map Unit Composition

Major Components
Occum: 85 percent

Inclusions
Pootatuck: 5 percent
Factoryville: 3 percent
Rippowam: 3 percent
Unnamed: 3 percent
Fluvaquents-Udifluvents: 1 percent

The moderately well drained Pootatuck, Factoryville, poorly drained Rippowam, and somewhat poorly and well drained Fluvaquents-Udifluvents soils may be included in areas of this map unit. Also included are small areas of somewhat poorly drained loamy flood plain soils. Pootatuck soils occupy slightly lower positions. Factoryville soils occupy similar positions, but are sandy. Rippowam soils are on small depressions. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 1
Hydric soil rating:
    Occum: no
Hydrologic group:
    Occum: A

Figure 22.—This photo illustrates a good example of a well drained Occum fine sandy loam alluvial terrace adjacent to the Boquet River, northwest of Wadhams in the town of Essex. These soils are class 1 agricultural lands and are potentially highly productive. Unfortunately, there are few acres of it in the county and they are fragmented into small irregular shaped pieces by the river, making them difficult to manage for crop production. Many are used for hay or pasture like this map unit. This map unit, at the time the photo was taken, was undergoing severe undercutting and streambank erosion from the river. The NRCS, Essex County Soil & Water Conservation District, and the Boquet River Association (a local environmental group), work with landowners to initiate streambank stabilization projects such as cribbing structures and willow plantings to help protect and enhance water quality in the river.

Soil Properties and Qualities

Occum
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: occasional
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very low
Landform: flood plains
Parent material: loamy alluvium derived from igneous and sedimentary rock
Reaction (pH):
- 0 to 9 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 9 to 21 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 21 to 30 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 30 to 36 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 36 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 21 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

30 to 36 inches: moderately rapid to very rapid (2 to 100 inches/hour)
36 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Flooding may delay planting or damage crops in some years.

Pasture
- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal.

Woodland
- Conducting road construction and harvesting operations during months of low stream flow, and use of riparian buffers will help overcome construction limitations of haul roads caused by occasional flooding.
- Limiting construction of log landings on occasionally flooded soils, and conducting harvesting operations during months when flooding is least likely to occur will help overcome these limitations. Riparian setbacks should be at least 200 feet.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.

Septic Tank Absorption Fields
- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

OwA—Ondawa sandy loam, 0 to 3 percent slopes

Setting

This soil is loamy, very deep, nearly level, and well drained. It is on flood plains in the Adirondack Upland. Areas range from 3 to 95 acres in size.

Map Unit Composition

Major Components
Ondawa: 85 percent

Inclusions
Podunk: 5 percent
Champlain: 3 percent
Rumney: 3 percent
Unnamed: 3 percent
Fluvaquents-Udifluvents: 1 percent

The moderately well drained Podunk, somewhat excessively drained Champlain, poorly drained Rumney, and somewhat poorly and well drained Fluvaquents-Udifluvents soils may be included in areas of this map unit. Also included are small areas of somewhat poorly drained, loamy flood plain soils. Podunk soils occupy slightly lower positions. Champlain soils occupy similar positions, but are sandy. Rumney soils are on small depressions. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 1
Hydric soil rating:
  Ondawa: no
Hydrologic group:
  Ondawa: A

Soil Properties and Qualities

Ondawa
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: occasional
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very low
Landform: flood plains
Parent material: loamy alluvium derived from gneiss
Reaction (pH):
  0 to 9 inches: very strongly acid to slightly acid (4.5 to 6.5)
  9 to 21 inches: very strongly acid to slightly acid (4.5 to 6.5)
  21 to 34 inches: very strongly acid to slightly acid (4.5 to 6.5)
  34 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  21 to 34 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  34 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.

- Flooding may delay planting or damage crops in some years.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Conducting road construction and harvesting operations during months of low stream flow, and use of riparian buffers will help overcome construction limitations of haul roads caused by occasional flooding.
- Limiting construction of log landings on occasionally flooded soils, and conducting harvesting operations during months when flooding is least likely to occur will help overcome these limitations. Riparian setbacks should be at least 200 feet.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.

Septic Tank Absorption Fields
- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Pc—Pits, quarry

Setting

This map unit consists of areas of exposed bedrock with some quarry or mine spoil debris. Slopes range from nearly level to vertical. These areas are found in old limestone quarries in the Champlain Valley, and in abandoned and active granite quarries, and open pit mines in the Adirondack Upland. Areas range from 5 to 50 acres in size.

Map Unit Composition

Major Components
Pits, quarry: 85 percent

Inclusions
Farmington: 4 percent
Lyman: 4 percent
Tunbridge: 4 percent
Chatfield: 2 percent
Hollis: 1 percent

The well drained Farmington, Lyman, Tunbridge, Chatfield, and Hollis soils may be included in areas of this map unit. They occupy small areas within or along the fringes of the quarry. Farmington, Lyman, and Hollis soils are loamy and shallow to bedrock, and Tunbridge and Chatfield soils are loamy and moderately deep to bedrock. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 8s
Hydric soil rating: unranked
Hydrologic group: unranked

This component is too variable to define the range of characteristics. Onsite investigation is needed to determine the suitability for specific uses.

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the exposed bedrock.

Pasture
- These soils are generally unsuited to use as pasture because of the exposed bedrock.

Woodland
- These areas are generally unsuited for commercial woodland use because of the exposed bedrock.

Development
- These areas are generally unsuited for development because of the exposed bedrock.

Pd—Pits, sand and gravel

Setting

This map unit consists of areas of active or abandoned sand or gravel mining operations. Slopes range from nearly level to vertical. Some of these areas may be reclaimed with native subsoil material and smoothed. These areas are found on deltas, outwash plains, and kame terraces throughout the county. Areas range from 3 to 80 acres in size.

Map Unit Composition

Major Components
Pits, sand and gravel: 85 percent

Inclusions
Adams: 3 percent
Colton: 3 percent
Howard: 3 percent
Monadnock: 3 percent
Windsor: 3 percent

The somewhat excessively drained Adams, excessively drained Colton and Windsor, and well drained Howard and Monadnock soils may be included in areas of this map unit. They occupy small areas within or along the fringes of the sand or gravel pit. Adams and Windsor soils are sandy; Colton soils are sandy and gravelly; Howard soils are loamy and gravelly; and Monadnock soils are loamy over sandy or gravelly and underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 8s
Hydric soil rating: unranked
Hydrologic group: unranked

This component is too variable to define the range of characteristics. Onsite investigation is needed to determine the suitability for specific uses.

Use and Management

Cropland
- These areas are generally unsuited to use as cropland.

Pasture
- Some reclaimed areas may be used for pasture. Onsite investigation is needed to determine forage species to plant and various conservation practices to employ.

Woodland
- Some areas may be reclaimed for commercial woodland use. Onsite investigation is needed to determine tree species to plant and various conservation practices to employ.

Development
- Some areas may be reclaimed for development. Onsite investigation is needed to determine various engineering and conservation practices to employ.

PfB—Pittsfield loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and well drained. It is on summits and shoulders of glaciated hills and till plains in the Champlain Valley. Areas range from 3 to 80 acres in size.

Map Unit Composition

Major Components
Pittsfield: 85 percent

Inclusions
Georgia: 5 percent
Massena: 3 percent
Unnamed: 3 percent
Charlton: 2 percent

Chatfield: 1 percent
Nellis: 1 percent

The moderately well drained Georgia, somewhat poorly drained Massena, Charlton, Chatfield, and Nellis soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Georgia soils occupy slightly lower positions. Massena soils are on small depressions or drainageways. Charlton, Chatfield, and Nellis soils occupy similar positions, but Charlton soils have a lower pH; Chatfield soils are moderately deep to bedrock and have a lower pH; and Nellis soils have a higher pH. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Pittsfield: no
Hydrologic group:
  Pittsfield: A

Soil Properties and Qualities

Pittsfield
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated till plains, glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
  8 to 10 inches: strongly acid to neutral (5.1 to 7.3)
  10 to 20 inches: strongly acid to neutral (5.1 to 7.3)
  20 to 24 inches: strongly acid to neutral (5.1 to 7.3)
  24 to 30 inches: moderately acid to neutral (5.6 to 7.3)
  30 to 45 inches: moderately acid to neutral (5.6 to 7.3)
  45 to 59 inches: moderately acid to moderately alkaline (5.6 to 8.4)
  59 to 72 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
  0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  8 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  10 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  24 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 45 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  45 to 59 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  59 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.

- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- These soils have no restrictions for commercial woodland use.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

PfC—Pittsfield loam, 8 to 15 percent slopes

Setting

This soil is loamy, very deep, strongly sloping, and well drained. It is on shoulders and backslopes of glaciated hills and till plains in the Champlain Valley. Areas range from 3 to 50 acres in size.

Map Unit Composition

Major Components
Pittsfield: 85 percent

Inclusions
Georgia: 5 percent
Charlton: 4 percent
Unnamed: 3 percent
Chatfield: 1 percent
Massena: 1 percent
Nellis: 1 percent

The moderately well drained Georgia, somewhat poorly drained Massena, Charlton, Chatfield, and Nellis soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Georgia soils occupy slightly lower positions. Massena soils are on small depressions or drainageways. Charlton, Chatfield, and Nellis soils occupy similar positions, but Charlton soils have a lower pH, Chatfield soils are moderately deep to bedrock and have a lower pH, and Nellis soils have a higher pH. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
    Pittsfield: no
Hydrologic group:
    Pittsfield: A

Soil Properties and Qualities

Pittsfield
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated till plains, glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
    0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
    8 to 10 inches: strongly acid to neutral (5.1 to 7.3)
    10 to 20 inches: strongly acid to neutral (5.1 to 7.3)
    20 to 24 inches: strongly acid to neutral (5.1 to 7.3)
    24 to 30 inches: moderately acid to neutral (5.6 to 7.3)
    30 to 45 inches: moderately acid to neutral (5.6 to 7.3)
    45 to 59 inches: moderately acid to moderately alkaline (5.6 to 8.4)
    59 to 72 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
    0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    8 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    10 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    20 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    24 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    30 to 45 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    45 to 59 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    59 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

PfD—Pittsfield loam, 15 to 25 percent slopes

Setting

This soil is loamy, very deep, moderately steep, and well drained. It is on backslopes of glaciated hills and till plains in the Champlain Valley. Areas range from 5 to 55 acres in size.

Map Unit Composition

Major Components
Pittsfield: 85 percent

Inclusions
Charlton: 6 percent
Unnamed: 4 percent
Chatfield: 3 percent
Georgia: 1 percent
Nellis: 1 percent

The moderately well drained Georgia, Charlton, Chatfield, and Nellis soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Georgia soils are on drainageways. Charlton, Chatfield, and Nellis soils occupy similar positions, but Charlton soils have a lower pH; Chatfield soils are moderately deep to bedrock and have a lower pH; and Nellis soils have a higher pH. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
    Pittsfield: no

Hydrologic group:
Pittsfield: A

Soil Properties and Qualities

Pittsfield
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Landform: glaciated hills, glaciated till plains
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
8 to 10 inches: strongly acid to neutral (5.1 to 7.3)
10 to 20 inches: strongly acid to neutral (5.1 to 7.3)
20 to 24 inches: strongly acid to neutral (5.1 to 7.3)
24 to 30 inches: moderately acid to neutral (5.6 to 7.3)
30 to 45 inches: moderately acid to neutral (5.6 to 7.3)
45 to 59 inches: moderately acid to moderately alkaline (5.6 to 8.4)
59 to 72 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
8 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
10 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
24 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 45 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
45 to 59 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
59 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining

properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

PfE—Pittsfield loam, 25 to 45 percent slopes

Setting

This soil is loamy, very deep, very steep, and well drained. It is on backslopes of glaciated hills and till plains in the Champlain Valley. Areas range from 3 to 35 acres in size.

Map Unit Composition

Major Components
Pittsfield: 85 percent

Inclusions
Charlton: 6 percent
Unnamed: 4 percent
Chatfield: 3 percent
Nellis: 2 percent

The Charlton, Chatfield, and Nellis soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Charlton, Chatfield, and Nellis soils occupy similar positions, but Charlton soils have a lower pH; Chatfield soils are moderately deep to bedrock and have a lower pH; and Nellis soils have a higher pH. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland

Land capability classification: 7e
Hydric soil rating:
Pittsfield: no
Hydrologic group:
Pittsfield: A

Soil Properties and Qualities

Pittsfield
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Landform: glaciated hills, glaciated till plains
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
8 to 10 inches: strongly acid to neutral (5.1 to 7.3)
10 to 20 inches: strongly acid to neutral (5.1 to 7.3)
20 to 24 inches: strongly acid to neutral (5.1 to 7.3)
24 to 30 inches: moderately acid to neutral (5.6 to 7.3)
30 to 45 inches: moderately acid to neutral (5.6 to 7.3)
45 to 59 inches: moderately acid to moderately alkaline (5.6 to 8.4)
59 to 72 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
8 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
10 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
24 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 45 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
45 to 59 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
59 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations due to steep slopes.

- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

PkA—Pleasant Lake peat, 0 to 2 percent slopes

Setting

This soil is mucky, very deep, nearly level, and very poorly drained. It is on bogs and swamps in the Adirondack Upland. Areas range from 3 to 115 acres in size.

Map Unit Composition

Major Components
Pleasant Lake: 85 percent

Inclusions
Burnt Vly: 5 percent
Bucksport: 4 percent
Wonsqueak: 3 percent
Rumney: 2 percent
Tahawus: 1 percent

The Burnt Vly, Bucksport, Wonsqueak, poorly drained Rumney, and Tahawus soils may be included in areas of this map unit. Burnt Vly, Bucksport and Wonsqueak soils occupy similar positions, but Burnt Vly and Wonsqueak soils are less than 51 inches deep to mineral soil material, and Bucksport and Wonsqueak soils have a higher pH. Rumney soils are loamy and are on small flood plain areas near streams. Tahawus

soils occupy similar positions, but are sandy and are on small areas underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Pleasant Lake: yes
Hydrologic group:
  Pleasant Lake: B/D

Soil Properties and Qualities

Pleasant Lake
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: not rated
Surface runoff potential: negligible
Landform: bogs, swamps
Parent material: organic material
Reaction (pH):
  0 to 4 inches: ultra acid or extremely acid (1.8 to 4.4)
  4 to 5 inches: ultra acid or extremely acid (1.8 to 4.4)
  5 to 9 inches: ultra acid or extremely acid (1.8 to 4.4)
  9 to 31 inches: ultra acid or extremely acid (1.8 to 4.4)
  31 to 44 inches: ultra acid or extremely acid (1.8 to 4.4)
  44 to 53 inches: ultra acid or extremely acid (1.8 to 4.4)
  53 to 66 inches: ultra acid or extremely acid (1.8 to 4.4)
Permeability:
  0 to 4 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  4 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  5 to 9 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  9 to 31 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  31 to 44 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  44 to 53 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  53 to 66 inches: moderately slow to rapid (0.2 to 20 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture due to ponding.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.

- Areas of poorly drained or very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The organic matter content limits soil strength and severely affects the capacity of these soils to bear a load without movement.
- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets

- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Subsidence of the organic material reduces the load-bearing capacity of these soils.

PlB—Pittsfield-Chatfield complex, 3 to 8 percent slopes, rocky, very stony

Setting

These soils are loamy, very deep and moderately deep, gently sloping, and well drained. They are on summits and shoulders of glaciated hills in the Champlain Valley. Areas range from 3 to 75 acres in size.

Map Unit Composition

Major Components
Pittsfield, rocky, very stony: 45 percent
Chatfield, rocky, very stony: 30 percent

Inclusions
Hollis: 8 percent
Unnamed: 6 percent
Charlton: 4 percent
Georgia: 2 percent
Massena: 2 percent
Cayuga: 1 percent
Nellis: 1 percent
Rock Outcrop: 1 percent

The Hollis, Charlton, Nellis, moderately well drained Georgia and Cayuga, and somewhat poorly drained Massena soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Hollis, Charlton, and Nellis soils occupy similar positions, but Hollis soils are shallow to bedrock; Charlton soils have a lower pH; and Nellis soils have a higher pH. Georgia and Cayuga soils occupy slightly lower positions, and Cayuga soils are clayey over loamy. Massena soils are on small depressions or drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Pittsfield, rocky, very stony: no
  Chatfield, rocky, very stony: no
Hydrologic group:
  Pittsfield, rocky, very stony: A
  Chatfield, rocky, very stony: B

Soil Properties and Qualities

Pittsfield, rocky, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
  8 to 10 inches: strongly acid to neutral (5.1 to 7.3)
  10 to 20 inches: strongly acid to neutral (5.1 to 7.3)
  20 to 24 inches: strongly acid to neutral (5.1 to 7.3)
  24 to 30 inches: moderately acid to neutral (5.6 to 7.3)
  30 to 45 inches: moderately acid to neutral (5.6 to 7.3)

45 to 59 inches: moderately acid to moderately alkaline (5.6 to 8.4)
59 to 72 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
8 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
10 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
24 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 45 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
45 to 59 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
59 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Chatfield, rocky, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
7 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
19 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
27 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
32 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused

by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock in some areas reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

PlC—Pittsfield-Chatfield complex, 8 to 15 percent slopes, rocky, very stony

Setting

These soils are loamy, very deep and moderately deep, strongly sloping, and well drained. They are on shoulders and backslopes of glaciated hills in the Champlain Valley. Areas range from 3 to 80 acres in size.

Map Unit Composition

Major Components
Pittsfield, rocky, very stony: 45 percent
Chatfield, rocky, very stony: 30 percent

Inclusions
Hollis: 8 percent
Unnamed: 6 percent
Charlton: 5 percent
Georgia: 2 percent
Cayuga: 1 percent
Massena: 1 percent
Nellis: 1 percent
Rock outcrop: 1 percent

The Hollis, Charlton, Nellis, moderately well drained Georgia and Cayuga, and somewhat poorly drained Massena soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Hollis, Charlton, and Nellis soils occupy similar positions, but Hollis soils are shallow to bedrock, Charlton soils have a lower pH, and Nellis soils have a higher pH. Georgia and Cayuga soils occupy slightly lower positions, and Cayuga soils are clayey over loamy. Massena soils are on small depressions or drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Pittsfield, rocky, very stony: no
  Chatfield, rocky, very stony: no
Hydrologic group:
  Pittsfield, rocky, very stony: A
  Chatfield, rocky, very stony: B

Soil Properties and Qualities

Pittsfield, rocky, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
  8 to 10 inches: strongly acid to neutral (5.1 to 7.3)
  10 to 20 inches: strongly acid to neutral (5.1 to 7.3)
  20 to 24 inches: strongly acid to neutral (5.1 to 7.3)
  24 to 30 inches: moderately acid to neutral (5.6 to 7.3)
  30 to 45 inches: moderately acid to neutral (5.6 to 7.3)
  45 to 59 inches: moderately acid to moderately alkaline (5.6 to 8.4)
  59 to 72 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
  0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  8 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  10 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  24 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 45 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  45 to 59 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  59 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Chatfield, rocky, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches

Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 7 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 19 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 27 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 32 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 19 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 32 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock in some areas reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

PlD—Pittsfield-Chatfield complex, 15 to 35 percent slopes, rocky, very stony

Setting

These soils are loamy, very deep and moderately deep, moderately steep and steep, and well drained. They are on backslopes of glaciated hills in the Champlain Valley. Areas range from 3 to 130 acres in size.

Map Unit Composition

Major Components
Pittsfield, rocky, very stony: 45 percent
Chatfield, rocky, very stony: 30 percent

Inclusions
Hollis: 9 percent
Unnamed: 7 percent
Charlton: 6 percent
Cayuga: 1 percent
Nellis: 1 percent
Rock outcrop: 1 percent

The Hollis, Charlton, Nellis, and moderately well drained Cayuga soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Hollis, Charlton, and Nellis soils occupy similar positions, but Hollis soils are shallow to bedrock, Charlton soils have a lower pH, and Nellis soils have a higher pH. Cayuga soils occupy slightly lower positions, and are clayey over loamy. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
 Pittsfield, rocky, very stony: no
 Chatfield, rocky, very stony: no
Hydrologic group:
 Pittsfield, rocky, very stony: A
 Chatfield, rocky, very stony: B

Soil Properties and Qualities

Pittsfield, rocky, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
 0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
 8 to 10 inches: strongly acid to neutral (5.1 to 7.3)
 10 to 20 inches: strongly acid to neutral (5.1 to 7.3)
 20 to 24 inches: strongly acid to neutral (5.1 to 7.3)
 24 to 30 inches: moderately acid to neutral (5.6 to 7.3)
 30 to 45 inches: moderately acid to neutral (5.6 to 7.3)
 45 to 59 inches: moderately acid to moderately alkaline (5.6 to 8.4)
 59 to 72 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
 0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 8 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 10 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 20 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 24 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 30 to 45 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 45 to 59 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 59 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Chatfield, rocky, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills

Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 7 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 19 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 27 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 32 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 19 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 32 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface stones.

Pasture
- The slope may restrict the use of most farm equipment.
- Avoiding overgrazing can reduce the hazard of erosion.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

PlF—Pittsfield-Chatfield complex, 35 to 60 percent slopes, rocky, very stony

Setting

These soils are loamy, very deep and moderately deep, very steep, and well drained. They are on backslopes of glaciated hills in the Champlain Valley. Areas range from 10 to 195 acres in size.

Map Unit Composition

Major Components

Pittsfield, rocky, very stony: 45 percent
Chatfield, rocky, very stony: 30 percent

Inclusions

Hollis: 9 percent
Unnamed: 7 percent
Charlton: 6 percent
Cayuga: 1 percent
Nellis: 1 percent
Rock outcrop: 1 percent

The Hollis, Charlton, Nellis, and moderately well drained Cayuga soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Hollis, Charlton, and Nellis soils occupy similar positions, but Hollis soils

are shallow to bedrock, Charlton soils have a lower pH, and Nellis soils have a higher pH. Cayuga soils occupy slightly lower positions, and are clayey over loamy. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Pittsfield, rocky, very stony: no
  Chatfield, rocky, very stony: no
Hydrologic group:
  Pittsfield, rocky, very stony: A
  Chatfield, rocky, very stony: B

Soil Properties and Qualities

Pittsfield, rocky, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy ablation till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
  8 to 10 inches: strongly acid to neutral (5.1 to 7.3)
  10 to 20 inches: strongly acid to neutral (5.1 to 7.3)
  20 to 24 inches: strongly acid to neutral (5.1 to 7.3)
  24 to 30 inches: moderately acid to neutral (5.6 to 7.3)
  30 to 45 inches: moderately acid to neutral (5.6 to 7.3)
  45 to 59 inches: moderately acid to moderately alkaline (5.6 to 8.4)
  59 to 72 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
  0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  8 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  10 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  24 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 45 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  45 to 59 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  59 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Chatfield, rocky, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate

Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 7 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 19 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 27 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 32 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 19 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 27 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 32 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface stones, and the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

PoA—Podunk very fine sandy loam, 0 to 3 percent slopes

Setting

This soil is loamy, very deep, nearly level, and moderately well drained. It is on flood plains in the Adirondack Upland. Areas range from 3 to 145 acres in size.

Map Unit Composition

Major Components
Podunk: 85 percent

Inclusions
Ondawa: 5 percent
Lovewell: 3 percent
Mooers: 3 percent
Rumney: 3 percent
Fluvaquents-Udifluvents: 1 percent

The well drained Ondawa, Lovewell, Mooers, poorly drained Rumney, and somewhat poorly drained and well drained Fluvaquents-Udifluvents soils may be included in areas of this map unit. Ondawa soils occupy higher positions. Lovewell and Mooers soils occupy similar positions, but Lovewell soils are silty, and Mooers soils are sandy. Rumney soils are on small depressions. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
Podunk: no
Hydrologic group:
Podunk: A/D

Soil Properties and Qualities

Podunk
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
Water table kind: apparent
Flooding: occasional
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: loamy alluvium derived from gneiss
Reaction (pH):
0 to 7 inches: very strongly acid to slightly acid (4.5 to 6.5)
7 to 11 inches: very strongly acid to slightly acid (4.5 to 6.5)
11 to 18 inches: very strongly acid to slightly acid (4.5 to 6.5)
18 to 31 inches: very strongly acid to slightly acid (4.5 to 6.5)
31 to 34 inches: very strongly acid to slightly acid (4.5 to 6.5)
34 to 39 inches: very strongly acid to slightly acid (4.5 to 6.5)
39 to 45 inches: very strongly acid to slightly acid (4.5 to 6.5)
45 to 53 inches: very strongly acid to slightly acid (4.5 to 6.5)
53 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 to 31 inches: moderately rapid to very rapid (2 to 100 inches/hour)
31 to 34 inches: moderately rapid to very rapid (2 to 100 inches/hour)
34 to 39 inches: moderately rapid to very rapid (2 to 100 inches/hour)
39 to 45 inches: moderately rapid to very rapid (2 to 100 inches/hour)
45 to 53 inches: moderately rapid to very rapid (2 to 100 inches/hour)
53 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Flooding may delay planting or damage crops in some years.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Conducting road construction and harvesting operations during months of low stream flow, and use of riparian buffers will help overcome construction limitations of haul roads caused by occasional flooding.
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Limiting construction of log landings on occasionally flooded soils, and conducting harvesting operations during months when flooding is least likely to occur will help overcome these limitations. Riparian setbacks should be at least 200 feet.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.

- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: The PoA map unit have very fine sandy loam textures in the upper solum that are not typical for the range of the Podunk series. This should not significantly affect use and management on a local basis for most purposes.

PrA—Pootatuck fine sandy loam, 0 to 3 percent slopes

Setting

This soil is loamy, very deep, nearly level, and moderately well drained. It is on flood plains in the Champlain Valley. Areas range from 3 to 85 acres in size.

Map Unit Composition

Major Components
Pootatuck: 85 percent

Inclusions
Occum: 5 percent
Deerfield: 3 percent
Rippowam: 3 percent
Unnamed: 3 percent
Fluvaquents-Udifluvents: 1 percent

The well drained Occum, Deerfield, poorly drained Rippowam, and somewhat poorly drained and well drained Fluvaquents-Udifluvents soils may be included in areas of this map unit. Also included are small areas of somewhat poorly drained loamy flood plain soils. Occum soils occupy higher positions. Deerfield soils occupy similar positions, but are sandy. Rippowam soils are on small depressions. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Pootatuck: no
Hydrologic group:
  Pootatuck: A/D

Soil Properties and Qualities

Pootatuck

Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
 Water table kind: apparent
Flooding: occasional
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very low
Landform: flood plains
Parent material: loamy alluvium derived from igneous and sedimentary rock
Reaction (pH):
 0 to 5 inches: very strongly acid to slightly acid (4.5 to 6.5)
 5 to 9 inches: very strongly acid to slightly acid (4.5 to 6.5)
 9 to 14 inches: very strongly acid to slightly acid (4.5 to 6.5)
 14 to 21 inches: very strongly acid to slightly acid (4.5 to 6.5)
 21 to 32 inches: very strongly acid to slightly acid (4.5 to 6.5)
 32 to 47 inches: very strongly acid to slightly acid (4.5 to 6.5)
 47 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
 0 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 9 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 14 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 21 to 32 inches: moderately rapid to very rapid (2 to 100 inches/hour)
 32 to 47 inches: moderately rapid to very rapid (2 to 100 inches/hour)
 47 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

Cropland

- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Flooding may delay planting or damage crops in some years.

Pasture

- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal.

Woodland

- Conducting road construction and harvesting operations during months of low stream flow, and use of riparian buffers will help overcome construction limitations of haul roads caused by occasional flooding.
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Limiting construction of log landings on occasionally flooded soils, and conducting harvesting operations during months when flooding is least likely to occur will help overcome these limitations. Riparian setbacks should be at least 200 feet.

- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

PtB—Pyrities fine sandy loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and well drained. It is on summits and shoulders of glaciated hills in the Adirondack Upland. Areas range from 3 to 425 acres in size.

Map Unit Composition

Major Components
Pyrities: 85 percent

Inclusions
Kalurah: 5 percent
Becket: 4 percent
Monadnock: 3 percent
Malone: 2 percent
Nehasne: 1 percent

The moderately well drained Kalurah, Becket, Monadnock, somewhat poorly drained Malone, and Nehasne soils may be included in areas of this map unit. Kalurah soils occupy slightly lower positions. Becket and Monadnock soils occupy similar positions, but both have a spodic horizon, Becket soils have a dense substratum, and Monadnock soils are loamy over sandy or gravelly. Malone soils are on small depressions or drainageways. Nehasne soils occupy similar positions, but are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Pyrities: no
Hydrologic group:
  Pyrities: A

Soil Properties and Qualities

Pyrities
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hills
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
  4 to 7 inches: moderately acid to neutral (5.6 to 7.3)
  7 to 11 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  20 to 28 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  28 to 54 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  54 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)

Permeability:
- 0 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 20 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 28 to 54 inches: slow to moderately rapid (0.06 to 6 inches/hour)
- 54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- These soils have no restrictions for commercial woodland use.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

PtC—Pyrities fine sandy loam, 8 to 15 percent slopes

Setting

This soil is loamy, very deep, strongly sloping, and well drained. It is on shoulders and backslopes of glaciated hills in the Adirondack Upland. Areas range from 3 to 555 acres in size.

Map Unit Composition

Major Components
Pyrities: 85 percent

Inclusions
Monadnock: 5 percent
Becket: 4 percent
Kalurah: 3 percent
Malone: 2 percent
Nehasne: 1 percent

The Monadnock, Becket, moderately well drained Kalurah, somewhat poorly drained Malone, and Nehasne soils may be included in areas of this map unit. Becket and Monadnock soils occupy similar positions, but both have a spodic horizon, Becket soils have a dense substratum, and Monadnock soils are loamy over sandy or gravelly. Kalurah soils occupy slightly lower positions. Malone soils are on small depressions or drainageways. Nehasne soils occupy similar positions, but are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Pyrities: no
Hydrologic group:
  Pyrities: A

Soil Properties and Qualities

Pyrities
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hills
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
  4 to 7 inches: moderately acid to neutral (5.6 to 7.3)
  7 to 11 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  20 to 28 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  28 to 54 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  54 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
  0 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  28 to 54 inches: slow to moderately rapid (0.06 to 6 inches/hour)
  54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland

- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

PtD—Pyrities fine sandy loam, 15 to 25 percent slopes

Setting

This soil is loamy, very deep, moderately steep, and well drained. It is on backslopes of glaciated hills in the Adirondack Upland. Areas range from 3 to 100 acres in size.

Map Unit Composition

Major Components

Pyrities: 85 percent

Inclusions

Monadnock: 5 percent
Becket: 4 percent

Unnamed: 3 percent
Kalurah: 2 percent
Nehasne: 1 percent

The Monadnock, Becket, moderately well drained Kalurah, and Nehasne soils may be included in areas of this map unit. Also included are areas with a very stony surface. Becket and Monadnock soils occupy similar positions, but both have a spodic horizon; Becket soils have a dense substratum; and Monadnock soils are loamy over sandy or gravelly. Kalurah soils are on drainageways. Nehasne soils occupy similar positions, but are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Pyrities: no
Hydrologic group:
  Pyrities: A

Soil Properties and Qualities

Pyrities
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Landform: glaciated hills
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
  4 to 7 inches: moderately acid to neutral (5.6 to 7.3)
  7 to 11 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  20 to 28 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  28 to 54 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  54 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
  0 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  28 to 54 inches: slow to moderately rapid (0.06 to 6 inches/hour)
  54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

PuC—Pyrities fine sandy loam, 8 to 15 percent slopes, very stony

Setting

This soil is loamy, very deep, strongly sloping, and well drained. It is on summits, shoulders, and backslopes of glaciated hills in the Adirondack Upland. Areas range from 3 to 260 acres in size.

Map Unit Composition

Major Components
Pyrities, very stony: 85 percent

Inclusions
Monadnock: 5 percent
Becket: 4 percent
Kalurah: 3 percent
Malone: 2 percent
Nehasne: 1 percent

The Monadnock, Becket, moderately well drained Kalurah, somewhat poorly drained Malone, and Nehasne soils may be included in areas of this map unit. Becket and Monadnock soils occupy similar positions, but both have a spodic horizon; Becket soils have a dense substratum; and Monadnock soils are loamy over sandy or gravelly. Kalurah soils occupy slightly lower positions. Malone soils are on small depressions or drainageways. Nehasne soils occupy similar positions, but are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Pyrities, very stony: no
Hydrologic group:
  Pyrities, very stony: A

Soil Properties and Qualities

Pyrities, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
  4 to 7 inches: moderately acid to neutral (5.6 to 7.3)
  7 to 11 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  20 to 28 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  28 to 54 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  54 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
  0 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

28 to 54 inches: slow to moderately rapid (0.06 to 6 inches/hour)
54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability due to strongly sloping areas.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

PuD—Pyrities fine sandy loam, 15 to 35 percent slopes, very stony

Setting

This soil is loamy, very deep, moderately steep and steep, and well drained. It is on backslopes of glaciated hills in the Adirondack Upland. Areas range from 3 to 345 acres in size.

Map Unit Composition

Major Components
Pyrities, very stony: 85 percent

Inclusions
Monadnock: 5 percent
Becket: 4 percent
Unnamed: 3 percent
Kalurah: 2 percent
Nehasne: 1 percent

The Monadnock, Becket, moderately well drained Kalurah, and Nehasne soils may be included in areas of this map unit. Also included are areas that lack a very stony surface. Becket and Monadnock soils occupy similar positions, but both have a spodic horizon; Becket soils have a dense substratum; and Monadnock soils are loamy over sandy or gravelly. Kalurah soils are on drainageways. Nehasne soils occupy similar positions, but are moderately deep to bedrock. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
Pyrities, very stony: no
Hydrologic group:
Pyrities, very stony: A

Soil Properties and Qualities

Pyrities, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
4 to 7 inches: moderately acid to neutral (5.6 to 7.3)
7 to 11 inches: slightly acid to slightly alkaline (6.1 to 7.8)
11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
20 to 28 inches: slightly acid to slightly alkaline (6.1 to 7.8)
28 to 54 inches: slightly acid to moderately alkaline (6.1 to 8.4)
54 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
0 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

28 to 54 inches: slow to moderately rapid (0.06 to 6 inches/hour)
54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface stones.

Pasture
- The slope may restrict the use of most farm equipment.
- Avoiding overgrazing can reduce the hazard of erosion.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

PwC—Pyrities-Nehasne complex, 8 to 15 percent slopes, rocky, very stony

Setting

These soils are loamy, very deep and moderately deep, strongly sloping, and well drained. They are on summits, shoulders, and backslopes of glaciated hills in the Adirondack Upland. Areas range from 3 to 145 acres in size.

Map Unit Composition

Major Components
Pyrities, very stony: 45 percent
Nehasne, very stony: 30 percent

Inclusions
Kalurah: 5 percent
Lyman: 5 percent
Becket: 4 percent
Malone: 4 percent
Monadnock: 4 percent
Unnamed: 2 percent
Rock outcrop: 1 percent

The moderately well drained Kalurah, Lyman, Becket, Monadnock, and somewhat poorly drained Malone soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Kalurah soils occupy slightly lower positions than Pyrities soils. Lyman, Becket, and Monadnock soils occupy similar positions, but all have a spodic horizon, Lyman soils are shallow to bedrock, Becket soils have a dense substratum, and Monadnock soils are loamy over sandy or gravelly. Malone soils are on small depressions or drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Pyrities, very stony: no
  Nehasne, very stony: no
Hydrologic group:
  Pyrities, very stony: A
  Nehasne, very stony: B

Soil Properties and Qualities

Pyrities, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate

Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
4 to 7 inches: moderately acid to neutral (5.6 to 7.3)
7 to 11 inches: slightly acid to slightly alkaline (6.1 to 7.8)
11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
20 to 28 inches: slightly acid to slightly alkaline (6.1 to 7.8)
28 to 54 inches: slightly acid to moderately alkaline (6.1 to 8.4)
54 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
0 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
28 to 54 inches: slow to moderately rapid (0.06 to 6 inches/hour)
54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Nehasne, very stony
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
0 to 6 inches: moderately acid or slightly acid (5.6 to 6.5)
6 to 13 inches: slightly acid or neutral (6.1 to 7.3)
13 to 20 inches: slightly acid or neutral (6.1 to 7.3)
20 to 25 inches: neutral or slightly alkaline (6.6 to 7.8)
25 inches, bedrock
Permeability:
0 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
25 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.

- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

PwD—Pyrities-Nehasne complex, 15 to 35 percent slopes, rocky, very stony

Setting

These soils are loamy, very deep and moderately deep, moderately steep and steep, and well drained. They are on backslopes of glaciated hills in the Adirondack Upland. Areas range from 3 to 475 acres in size.

Map Unit Composition

Major Components
Pyrities, very stony: 45 percent
Nehasne, very stony: 30 percent

Inclusions
Becket: 7 percent
Lyman: 7 percent
Kalurah: 4 percent
Monadnock: 4 percent
Unnamed: 2 percent
Rock outcrop: 1 percent

The moderately well drained Kalurah, Lyman, Becket, and Monadnock soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Kalurah soils occupy slightly lower positions than Pyrities soils. Lyman, Becket, and Monadnock soils occupy similar positions, but all have a spodic horizon, Lyman soils are shallow to bedrock, Becket soils have a dense substratum, and Monadnock soils are loamy over sandy or gravelly. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
Pyrities, very stony: no
Nehasne, very stony: no
Hydrologic group:
Pyrities, very stony: A
Nehasne, very stony: B

Soil Properties and Qualities

Pyrities, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy lodgment till derived from igneous and sedimentary rock

Reaction (pH):
- 0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
- 4 to 7 inches: moderately acid to neutral (5.6 to 7.3)
- 7 to 11 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 20 to 28 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 28 to 54 inches: slightly acid to moderately alkaline (6.1 to 8.4)
- 54 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)

Permeability:
- 0 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 20 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 28 to 54 inches: slow to moderately rapid (0.06 to 6 inches/hour)
- 54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Nehasne, very stony

Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very stony
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
- 0 to 6 inches: moderately acid or slightly acid (5.6 to 6.5)
- 6 to 13 inches: slightly acid or neutral (6.1 to 7.3)
- 13 to 20 inches: slightly acid or neutral (6.1 to 7.3)
- 20 to 25 inches: neutral or slightly alkaline (6.6 to 7.8)
- 25 inches, bedrock

Permeability:
- 0 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 25 inches, bedrock

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of surface stones.

Pasture

- The slope may restrict the use of most farm equipment.
- Avoiding overgrazing can reduce the hazard of erosion.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage

structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.
- Locating haul roads on soils that are deeper to bedrock, or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

PyC—Pyrities-Nehasne complex, 8 to 15 percent slopes, rocky

Setting

These soils are loamy, very deep and moderately deep, strongly sloping, and well drained. They are on summits, shoulders, and backslopes of glaciated hills in the Adirondack Upland. Areas range from 3 to 175 acres in size.

Map Unit Composition

Major Components
Pyrities: 45 percent
Nehasne: 30 percent

Inclusions
Kalurah: 5 percent
Lyman: 5 percent
Becket: 4 percent
Monadnock: 4 percent
Malone: 3 percent
Rock outcrop: 2 percent
Unnamed: 2 percent

The moderately well drained Kalurah, Lyman, Becket, Monadnock, and somewhat poorly drained Malone soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Kalurah soils occupy slightly lower positions than Pyrities soils. Lyman, Becket, and Monadnock soils occupy similar positions, but all have a spodic horizon; Lyman soils are shallow to bedrock; Becket soils have a dense substratum; and Monadnock soils are loamy over sandy or gravelly. Malone soils are on small depressions or drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Pyrities: no
  Nehasne: no
Hydrologic group:
  Pyrities: A
  Nehasne: B

Soil Properties and Qualities

Pyrities
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hills

Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
  4 to 7 inches: moderately acid to neutral (5.6 to 7.3)
  7 to 11 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  20 to 28 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  28 to 54 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  54 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
  0 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  28 to 54 inches: slow to moderately rapid (0.06 to 6 inches/hour)
  54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Nehasne
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 6 inches: moderately acid or slightly acid (5.6 to 6.5)
  6 to 13 inches: slightly acid or neutral (6.1 to 7.3)
  13 to 20 inches: slightly acid or neutral (6.1 to 7.3)
  20 to 25 inches: neutral or slightly alkaline (6.6 to 7.8)
  25 inches, bedrock
Permeability:
  0 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  25 inches, bedrock

Use and Management

Cropland
- The rooting depth of some crops may be restricted by bedrock.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

PyD—Pyrities-Nehasne complex, 15 to 25 percent slopes, rocky

Setting

These soils are loamy, very deep and moderately deep, moderately steep, and well drained. They are on backslopes of glaciated hills in the Adirondack Upland. Areas range from 3 to 50 acres in size.

Map Unit Composition

Major Components
Pyrities: 45 percent
Nehasne: 30 percent

Inclusions
Becket: 5 percent
Lyman: 5 percent
Rock outcrop: 5 percent
Kalurah: 4 percent
Monadnock: 4 percent
Unnamed: 2 percent

The moderately well drained Kalurah, Lyman, Becket, and Monadnock soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Kalurah soils occupy slightly lower positions than Pyrities soils. Lyman, Becket, and Monadnock soils occupy similar positions, but all have a spodic horizon; Lyman soils are shallow to bedrock; Becket soils have a dense substratum; and Monadnock soils are loamy over sandy or gravelly. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
- Pyrities: no
- Nehasne: no

Hydrologic group:
- Pyrities: A
- Nehasne: B

Soil Properties and Qualities

Pyrities
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Landform: glaciated hills
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
- 0 to 4 inches: moderately acid to neutral (5.6 to 7.3)
- 4 to 7 inches: moderately acid to neutral (5.6 to 7.3)
- 7 to 11 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 20 to 28 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 28 to 54 inches: slightly acid to moderately alkaline (6.1 to 8.4)
- 54 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)

Permeability:
- 0 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

7 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
28 to 54 inches: slow to moderately rapid (0.06 to 6 inches/hour)
54 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Nehasne
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Landform: glaciated hills
Parent material: loamy till derived from igneous and sedimentary rock
Reaction (pH):
0 to 6 inches: moderately acid or slightly acid (5.6 to 6.5)
6 to 13 inches: slightly acid or neutral (6.1 to 7.3)
13 to 20 inches: slightly acid or neutral (6.1 to 7.3)
20 to 25 inches: neutral or slightly alkaline (6.6 to 7.8)
25 inches, bedrock
Permeability:
0 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
25 inches, bedrock

Use and Management

Cropland
- The rooting depth of some crops may be restricted by bedrock.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Locating haul roads on soils that are deeper to bedrock, or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.

- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

RaC—Rawsonville-Hogback complex, 8 to 15 percent slopes, very rocky, very bouldery

Setting

These soils are loamy, moderately deep and shallow, strongly sloping, and well drained. They are on summits, shoulders, and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 4 to 40 acres in size.

Map Unit Composition

Major Components
Rawsonville, very rocky, very bouldery: 45 percent
Hogback, very rocky, very bouldery: 30 percent

Inclusions
Ampersand: 5 percent
Knob Lock: 5 percent
Mundalite: 5 percent
Tunbridge: 4 percent
Lyman: 3 percent
Rock outcrop: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Ampersand, Knob Lock, Mundalite, Tunbridge, and Lyman soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Ampersand soils are on small depressions and drainageways. Knob Lock, Mundalite, Tunbridge, and Lyman soils occupy similar positions, but Knob Lock soils are shallow to very shallow and are organic, Mundalite soils are very deep, and Tunbridge and Lyman soils have less organic matter in the subsoil. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Rawsonville, very rocky, very bouldery: no
  Hogback, very rocky, very bouldery: no
Hydrologic group:
  Rawsonville, very rocky, very bouldery: B
  Hogback, very rocky, very bouldery: D

Soil Properties and Qualities

Rawsonville, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
  3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
  4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
  5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
  11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)

20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
25 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
25 inches, bedrock

Hogback, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
6 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
14 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the rock outcrops.

Pasture
- Erosion control is needed when pastures are renovated.
- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations caused by moderately deep and shallow soils.

- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery or extremely stony surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

RaD—Rawsonville-Hogback complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

These soils are loamy, moderately deep and shallow, moderately steep and steep, and well drained. They are on shoulders and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 5 to 200 acres in size.

Map Unit Composition

Major Components
Rawsonville, very rocky, very bouldery: 45 percent
Hogback, very rocky, very bouldery: 30 percent

Inclusions
Knob Lock: 5 percent
Mundalite: 5 percent
Rock outcrop: 5 percent
Tunbridge: 5 percent
Lyman: 3 percent
Ampersand: 1 percent
Unnamed: 1 percent

The Knob Lock, Mundalite, Tunbridge, Lyman, and somewhat poorly drained Ampersand soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Knob Lock, Mundalite, Tunbridge, and Lyman soils occupy similar positions, but Knob Lock soils are shallow to very shallow and are organic; Mundalite soils are very deep; and Tunbridge and Lyman soils have less organic matter in the subsoil. Ampersand soils are on drainageways. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Rawsonville, very rocky, very bouldery: no
  Hogback, very rocky, very bouldery: no
Hydrologic group:
  Rawsonville, very rocky, very bouldery: B
  Hogback, very rocky, very bouldery: D

Soil Properties and Qualities

Rawsonville, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss

Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)
20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
25 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
25 inches, bedrock

Hogback, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
6 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
14 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the rock outcrops.

Pasture
- The slope may restrict the use of most farm equipment.

- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by moderately deep and shallow soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.

- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

RaF—Rawsonville-Hogback complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

These soils are loamy, moderately deep and shallow, very steep, and well drained. They are on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 185 acres in size.

Map Unit Composition

Major Components
Rawsonville, very rocky, very bouldery: 45 percent
Hogback, very rocky, very bouldery: 30 percent

Inclusions
Rock outcrop: 8 percent
Knob Lock: 5 percent
Mundalite: 5 percent
Lyman: 3 percent
Tunbridge: 3 percent
Unnamed: 1 percent

The Knob Lock, Mundalite, Tunbridge, and Lyman soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Knob Lock, Mundalite, Tunbridge, and Lyman soils occupy similar positions, but Knob Lock soils are shallow to very shallow and are organic; Mundalite soils are very deep; and Tunbridge and Lyman soils have less organic matter in the subsoil. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Rawsonville, very rocky, very bouldery: no
    Hogback, very rocky, very bouldery: no
Hydrologic group:
    Rawsonville, very rocky, very bouldery: B
    Hogback, very rocky, very bouldery: D

Soil Properties and Qualities

Rawsonville, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
- 5 to 11 inches: extremely acid to strongly acid (3.5 to 5.5)
- 11 to 20 inches: extremely acid to strongly acid (3.5 to 5.5)
- 20 to 25 inches: extremely acid to strongly acid (3.5 to 5.5)
- 25 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 to 20 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 20 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 25 inches, bedrock

Hogback, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
- 6 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
- 14 inches, bedrock

Permeability:
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 6 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 14 inches, bedrock

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of the slope, the erosion hazard, and the rock outcrops.

Pasture

- These soils are generally not recommended for pasture.

Woodland

- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to moderately deep and shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations due to very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and re-seeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.

- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

RmA—Rippowam fine sandy loam, 0 to 3 percent slopes

Setting

This soil is loamy, very deep, nearly level, and poorly drained. It is on flood plains in the Champlain Valley. Areas range from 3 to 270 acres in size.

Map Unit Composition

Major Components
Rippowam: 85 percent

Inclusions
Pootatuck: 5 percent
Unnamed: 4 percent
Fluvaquents-Udifluvents: 3 percent
Gougeville: 3 percent

The moderately well drained Pootatuck, somewhat poorly drained and well drained Fluvaquents-Udifluvents, and Gougeville soils may be included in areas of this map unit. Also included are small areas of somewhat poorly drained, loamy flood plain soils. Pootatuck soils occupy higher positions. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Gougeville soils occupy similar positions, but are sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 4w
Hydric soil rating:
  Rippowam: yes
Hydrologic group:
  Rippowam: A/D

Soil Properties and Qualities

Rippowam
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: frequent
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: loamy alluvium derived from igneous and sedimentary rock
Reaction (pH):
  0 to 2 inches: very strongly acid to neutral (4.5 to 7.3)
  2 to 11 inches: very strongly acid to neutral (4.5 to 7.3)
  11 to 21 inches: very strongly acid to neutral (4.5 to 7.3)
  21 to 29 inches: very strongly acid to neutral (4.5 to 7.3)
  29 to 36 inches: very strongly acid to neutral (4.5 to 7.3)
  36 to 43 inches: very strongly acid to neutral (4.5 to 7.3)
  43 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 2 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  2 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  21 to 29 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  29 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  36 to 43 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  43 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are poorly suited to cultivated crops due to the seasonal high water table.
- Flooding may delay planting or damage crops in some years.
- The root system of some deep-rooted crops may be damaged by frost action.

Pasture
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland
- Avoiding construction of haul roads in frequently flooded areas is recommended.
- Avoiding construction of log landings on frequently flooded soils is recommended.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality

limitations due to wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: The RmA map unit is a taxadjunct to the Rippowam series because the pedon qualifies as not having a Cambic horizon. The classification of the taxadjunct is Coarse-loamy, mixed, superactive, nonacid, mesic Aeric Fluvaquents. This is the former classification of the Rippowam series prior to changes regarding the Cambic horizon in Soil Taxonomy in 1999. The present Rippowam classification is Coarse-loamy, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquepts. This should not significantly affect use and management on a local basis for most purposes.

RpF—Rock outcrop-Knob Lock-Lyman complex, 35 to 60 percent slopes, very bouldery

Setting

This map unit consists of areas of exposed bedrock and soils that are loamy and organic, shallow to very shallow, very steep, and well drained to excessively drained.

It is on backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 4 to 660 acres in size.

Map Unit Composition

Major Components
Rock outcrop, very bouldery: 40 percent
Knob Lock, very rocky, very bouldery: 30 percent
Lyman, very rocky, very bouldery: 20 percent

Inclusions
Tunbridge: 3 percent
Becket: 2 percent
Hogback: 2 percent
Hermon: 1 percent
Monadnock: 1 percent
Unnamed: 1 percent

The Tunbridge, Becket, Hogback, Monadnock, and somewhat excessively drained Hermon soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Tunbridge, Hogback, Becket, Monadnock, and Hermon soils occupy similar positions, but Tunbridge soils are moderately deep to bedrock; Hogback soils have more organic matter than Lyman soils; Becket, Monadnock, and Hermon soils are very deep to bedrock; Monadnock soils are loamy over sandy or gravelly; and Hermon soils are sandy and gravelly. Included areas can occupy about 10 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
- Rock outcrop, very bouldery: no
- Knob Lock, very rocky, very bouldery: no
- Lyman, very rocky, very bouldery: no

Hydrologic group:
- Rock outcrop, very bouldery: unranked
- Knob Lock, very rocky, very bouldery: D
- Lyman, very rocky, very bouldery: D

Rock outcrop, very bouldery
Characteristics not defined for this component.

Knob Lock, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very high
Landform: glaciated hillside or mountainsides
Parent material: non-saturated organic material over loamy till derived from gneiss
Reaction (pH):
- 0 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
- 3 to 7 inches: ultra acid or extremely acid (1.8 to 4.4)
- 7 to 9 inches: extremely acid or very strongly acid (3.5 to 5.0)
- 9 inches, bedrock

Permeability:
- 0 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 7 to 9 inches: moderate to very rapid (0.6 to 100 inches/hour)
- 9 inches, bedrock

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
- 9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 inches, bedrock

Permeability:
- 0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope, the erosion hazard, and the rock outcrops.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.

- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- Because of the depth to bedrock, these soils are very limited as a site for septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

RsA—Roundabout silt loam, 0 to 3 percent slopes

Setting

This soil is silty, very deep, nearly level, and somewhat poorly drained. It is on footslopes of glacial valley walls in the Adirondack Upland. Areas range from 3 to 90 acres in size.

Map Unit Composition

Major Components
Roundabout: 85 percent

Inclusions
Nicholville: 5 percent
Unnamed: 4 percent
Hailesboro: 3 percent
Naumburg: 2 percent
Wegatchie: 1 percent

The moderately well drained Nicholville, Hailesboro, Naumburg, and poorly drained Wegatchie soils may be included in areas of this map unit. Also included are small areas of poorly drained silty soils. Nicholville soils occupy higher positions. Hailesboro and Naumburg soils occupy similar positions, but Hailesboro soils are silty and clayey; and Naumburg soils are sandy. Wegatchie soils are on small depressions and drainageways, and are silty and clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Roundabout: no
Hydrologic group:
  Roundabout: A/D

Soil Properties and Qualities

Roundabout
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: glacial-valley walls
Parent material: silty glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 11 inches: very strongly acid to slightly acid (4.5 to 6.5)
  11 to 19 inches: very strongly acid to slightly acid (4.5 to 6.5)
  19 to 28 inches: very strongly acid to slightly acid (4.5 to 6.5)
  28 to 42 inches: moderately acid to neutral (5.6 to 7.3)
  42 to 72 inches: moderately acid to neutral (5.6 to 7.3)
Permeability:
  0 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  11 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 28 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  28 to 42 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  42 to 72 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

RuA—Rumney loam, 0 to 3 percent slopes

Setting

This soil is loamy, very deep, nearly level, and poorly drained. It is on flood plains in the Adirondack Upland. Areas range from 4 to 225 acres in size.

Map Unit Composition

Major Components
Rumney: 85 percent

Inclusions
Burnt Vly: 3 percent
Medomak: 3 percent
Podunk: 3 percent
Charles: 2 percent
Fluvaquents-Udifluvents: 2 percent
Searsport: 2 percent

The very poorly drained Burnt Vly, Medomak, Searsport, moderately well drained Podunk, Charles, and somewhat poorly drained and well drained Fluvaquents-Udifluvents soils may be included in areas of this map unit. Also included are small areas of somewhat poorly drained, loamy flood plain soils. Burnt Vly, Medomak, and Searsport soils occupy lower positions; Burnt Vly soils are mucky; Medomak soils are silty; and Searsport soils are sandy. Podunk soils occupy higher positions. Charles soils occupy similar positions, but are silty. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 4w
Hydric soil rating:
    Rumney: yes
Hydrologic group:
    Rumney: B/D

Soil Properties and Qualities

Rumney
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches

Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
Water table kind: apparent
Flooding: frequent
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: loamy alluvium derived from gneiss
Reaction (pH):
0 to 7 inches: very strongly acid to neutral (4.5 to 7.3)
7 to 12 inches: very strongly acid to neutral (4.5 to 7.3)
12 to 19 inches: very strongly acid to neutral (4.5 to 7.3)
19 to 30 inches: very strongly acid to neutral (4.5 to 7.3)
30 to 33 inches: very strongly acid to neutral (4.5 to 7.3)
33 to 48 inches: very strongly acid to neutral (4.5 to 7.3)
48 to 54 inches: very strongly acid to neutral (4.5 to 7.3)
54 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 33 inches: moderately rapid to very rapid (2 to 100 inches/hour)
33 to 48 inches: moderately rapid to very rapid (2 to 100 inches/hour)
48 to 54 inches: moderately rapid to very rapid (2 to 100 inches/hour)
54 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are poorly suited to cultivated crops due to the seasonal high water table.
- Flooding may delay planting or damage crops in some years.
- The root system of some deep-rooted crops may be damaged by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction of haul roads in frequently flooded areas is recommended.
- Avoiding construction of log landings on frequently flooded soils is recommended.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.

- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

RyA—Rumney-Burnt Vly complex, 0 to 3 percent slopes

Setting

These soils are loamy and mucky, very deep, nearly level, and poorly drained to very poorly drained. They are on flood plains in the Adirondack Upland. Areas range from 5 to 150 acres in size.

Map Unit Composition

Major Components

Rumney: 45 percent
Burnt Vly: 30 percent

Inclusions

Fluvaquents-Udifluvents: 5 percent
Pleasant Lake: 5 percent
Podunk: 5 percent
Tahawus: 5 percent
Wonsqueak: 5 percent

The somewhat poorly and well drained Fluvaquents-Udifluvents, moderately well drained Podunk, Pleasant Lake, Tahawus, and Wonsqueak soils may be included in areas of this map unit. Also included are small areas of somewhat poorly drained loamy flood plain soils. Fluvaquents-Udifluvents soils occupy positions directly adjacent to the stream channel. Podunk soils occupy higher positions. Pleasant Lake, Tahawus, and Wonsqueak soils occupy similar positions, but Pleasant Lake soils are greater than 51 inches deep to mineral soil material; Tahawus soils are sandy and underlain by till; and Wonsqueak soils have a higher pH than Burnt Vly soils. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 4w
Hydric soil rating:
Rumney: yes
Burnt Vly: yes
Hydrologic group:
Rumney: B/D
Burnt Vly: B/D

Soil Properties and Qualities

Rumney

Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
Water table kind: apparent
Flooding: frequent
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: flood plains
Parent material: loamy alluvium derived from gneiss
Reaction (pH):
0 to 7 inches: very strongly acid to neutral (4.5 to 7.3)
7 to 12 inches: very strongly acid to neutral (4.5 to 7.3)
12 to 19 inches: very strongly acid to neutral (4.5 to 7.3)
19 to 30 inches: very strongly acid to neutral (4.5 to 7.3)
30 to 33 inches: very strongly acid to neutral (4.5 to 7.3)
33 to 48 inches: very strongly acid to neutral (4.5 to 7.3)
48 to 54 inches: very strongly acid to neutral (4.5 to 7.3)
54 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
0 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 12 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
12 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
19 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 33 inches: moderately rapid to very rapid (2 to 100 inches/hour)
33 to 48 inches: moderately rapid to very rapid (2 to 100 inches/hour)
48 to 54 inches: moderately rapid to very rapid (2 to 100 inches/hour)
54 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Burnt Vly
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: flood plains
Parent material: organic material over sandy glaciofluvial deposits
Reaction (pH):
0 to 10 inches: ultra acid to very strongly acid (1.8 to 4.5)
10 to 15 inches: ultra acid to very strongly acid (1.8 to 4.5)
15 to 24 inches: ultra acid to very strongly acid (1.8 to 4.5)
24 to 34 inches: ultra acid to very strongly acid (1.8 to 4.5)
34 to 56 inches: extremely acid to slightly acid (3.5 to 6.5)
56 to 72 inches: extremely acid to slightly acid (3.5 to 6.5)
Permeability:
0 to 10 inches: moderately slow to rapid (0.2 to 20 inches/hour)
10 to 15 inches: moderately slow to rapid (0.2 to 20 inches/hour)
15 to 24 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
24 to 34 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
34 to 56 inches: moderate to very rapid (0.6 to 100 inches/hour)
56 to 72 inches: moderate to very rapid (0.6 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are poorly suited to cultivated crops due to the seasonal high water table.
- Flooding may delay planting or damage crops in some years.
- The root system of some deep-rooted crops may be damaged by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.
- These soils are generally unsuited to cultivated crops due to ponding in some areas.

Pasture
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.

- Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.
- These soils are poorly suited to pasture due to ponding in some areas.

Woodland

- Avoiding construction of haul roads in frequently flooded areas is recommended.
- Avoiding construction of log landings on frequently flooded soils is recommended.
- Areas of poorly drained or very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

- Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

- Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems.
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.

- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.

SeA—Searsport peat, 0 to 3 percent slopes

Setting

This soil is sandy, very deep, nearly level, and very poorly drained. It is on toeslopes of deltas, outwash plains, and stream terraces in the Adirondack Upland. Areas range from 3 to 80 acres in size.

Map Unit Composition

Major Components
Searsport: 85 percent

Inclusions
Naumburg: 5 percent
Burnt Vly: 4 percent
Wegatchie: 3 percent
Tahawus: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Naumburg, Burnt Vly, Wegatchie, and Tahawus soils may be included in areas of this map unit. Also included are small areas of poorly drained sandy soils. Naumburg soils occupy higher positions. Burnt Vly, Wegatchie, and Tahawus soils occupy similar positions, but Burnt Vly soils are mucky, Wegatchie soils are silty and clayey, and Tahawus soils are underlain by till. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
    Searsport: yes
Hydrologic group:
    Searsport: B/D

Soil Properties and Qualities

Searsport
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Landform: deltas, outwash plains, stream terraces
Parent material: sandy glaciolacustrine deposits derived from gneiss
Reaction (pH):
  0 to 4 inches: extremely acid to slightly acid (3.5 to 6.5)
  4 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 14 inches: extremely acid to slightly acid (3.5 to 6.5)
  14 to 22 inches: very strongly acid to slightly acid (4.5 to 6.5)
  22 to 32 inches: very strongly acid to slightly acid (4.5 to 6.5)
  32 to 40 inches: very strongly acid to slightly acid (4.5 to 6.5)
  40 to 48 inches: very strongly acid to slightly acid (4.5 to 6.5)
  48 to 54 inches: very strongly acid to slightly acid (4.5 to 6.5)
  54 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 4 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  4 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  9 to 14 inches: moderately rapid or rapid (2 to 20 inches/hour)
  14 to 22 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  22 to 32 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  32 to 40 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  40 to 48 inches: moderately rapid to very rapid (2 to 100 inches/hour)
  48 to 54 inches: moderate to very rapid (0.6 to 100 inches/hour)
  54 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture due to ponding.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness.
- Areas of poorly drained and very poorly drained soils and areas of soils that are subject to ponding should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Maintaining a vegetative cover or spreading slash over exposed soil areas will help overcome harvest equipment operability limitations due to sandy surfaces.

- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.

Septic Tank Absorption Fields

- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets

- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: The SeA and 367A map units have components with textures below 40 inches that are finer than typical for the range of the Searsport series. This should not significantly affect use and management on a local basis for most purposes.

SkB—Skerry loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and moderately well drained. It is on footslopes and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 140 acres in size.

Map Unit Composition

Major Components
Skerry: 85 percent

Inclusions
Adirondack: 5 percent
Becket: 5 percent
Sunapee: 3 percent
Unnamed: 2 percent

The somewhat poorly drained Adirondack, well drained Becket, and Sunapee soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Adirondack soils occupy slightly lower positions. Becket soils occupy higher positions. Sunapee soils occupy similar positions but lack the dense substratum. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Skerry: no
Hydrologic group:
  Skerry: B/D

Soil Properties and Qualities

Skerry
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: extremely acid to slightly acid (3.5 to 6.5)
  4 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
  15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
  26 to 38 inches: extremely acid to slightly acid (3.5 to 6.5)
  38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
  2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  26 to 38 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

SnB—Sunapee fine sandy loam, 3 to 8 percent slopes, very bouldery

Setting

This soil is loamy, very deep, gently sloping, and moderately well drained. It is on footslopes and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 155 acres in size.

Map Unit Composition

Major Components
Sunapee, very bouldery: 85 percent

Inclusions
Monadnock: 5 percent
Adirondack: 4 percent
Fernlake: 3 percent
Skerry: 3 percent

The well drained Monadnock, somewhat poorly drained Adirondack, somewhat excessively drained Fernlake, and Skerry soils may be included in areas of this map unit. Monadnock and Fernlake soils occupy higher positions, and Fernlake soils are sandy. Adirondack soils occupy slightly lower positions and have a dense substratum. Skerry soils occupy similar positions, but have a dense substratum. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Sunapee, very bouldery: no
Hydrologic group:
  Sunapee, very bouldery: B

Soil Properties and Qualities

Sunapee, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
  4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
  5 to 7 inches: extremely acid to strongly acid (3.5 to 5.5)
  7 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
  14 to 19 inches: extremely acid to strongly acid (3.5 to 5.5)
  19 to 31 inches: extremely acid to strongly acid (3.5 to 5.5)
  31 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  14 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 31 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  31 to 72 inches: moderately rapid or rapid (2 to 20 inches/hour)

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture

- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard. Consult the Water Features table for months of seasonal saturation.

- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

SpB—Sunapee fine sandy loam, 3 to 8 percent slopes

Setting

This soil is loamy, very deep, gently sloping, and moderately well drained. It is on footslopes and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 75 acres in size.

Map Unit Composition

Major Components
Sunapee: 85 percent

Inclusions
Monadnock: 5 percent
Adirondack: 4 percent

Fernlake: 3 percent
Skerry: 3 percent

The well drained Monadnock, somewhat poorly drained Adirondack, somewhat excessively drained Fernlake, and Skerry soils may be included in areas of this map unit. Also included are areas that lack a spodic horizon. Monadnock and Fernlake soils occupy higher positions, and Fernlake soils are sandy. Adirondack soils occupy slightly lower positions, and have a dense substratum. Skerry soils occupy similar positions, but have a dense substratum. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Sunapee: no
Hydrologic group:
  Sunapee: B

Soil Properties and Qualities

Sunapee
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: low
Landform: glaciated hillside or mountainsides
Parent material: loamy ablation till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
  4 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
  5 to 7 inches: extremely acid to strongly acid (3.5 to 5.5)
  7 to 14 inches: extremely acid to strongly acid (3.5 to 5.5)
  14 to 19 inches: extremely acid to strongly acid (3.5 to 5.5)
  19 to 31 inches: extremely acid to strongly acid (3.5 to 5.5)
  31 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  14 to 19 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  19 to 31 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  31 to 72 inches: moderately rapid or rapid (2 to 20 inches/hour)

Use and Management

Cropland
- These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.

- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard. Consult the Water Features table for months of seasonal saturation.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity.
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

SrB—Skerry loam, 3 to 8 percent slopes, very bouldery

Setting

This soil is loamy, very deep, gently sloping, and moderately well drained. It is on footslopes and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 3 to 230 acres in size.

Map Unit Composition

Major Components
Skerry, very bouldery: 85 percent

Inclusions
Adirondack: 5 percent
Becket: 5 percent
Sunapee: 3 percent
Unnamed: 2 percent

The somewhat poorly drained Adirondack, well drained Becket, and Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Adirondack soils occupy slightly lower positions. Becket soils occupy higher positions. Sunapee soils occupy similar positions but lack the dense substratum. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Skerry, very bouldery: no
Hydrologic group:
  Skerry, very bouldery: B/D

Soil Properties and Qualities

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
  2 to 4 inches: extremely acid to slightly acid (3.5 to 6.5)
  4 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
  9 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
  15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
  26 to 38 inches: extremely acid to slightly acid (3.5 to 6.5)
  38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
- 0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 26 to 38 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.

- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

SrC—Skerry loam, 8 to 15 percent slopes, very bouldery

Setting

This soil is loamy, very deep, strongly sloping, and moderately well drained. It is on footslopes and backslopes of glaciated hillsides and mountainsides in the Adirondack Upland. Areas range from 4 to 200 acres in size.

Map Unit Composition

Major Components
Skerry, very bouldery: 85 percent

Inclusions
Adirondack: 5 percent
Becket: 5 percent
Sunapee: 3 percent
Unnamed: 2 percent

The somewhat poorly drained Adirondack, well drained Becket, and Sunapee soils may be included in areas of this map unit. Also included are areas that lack a very bouldery surface. Adirondack soils occupy slightly lower positions. Becket soils occupy higher positions. Sunapee soils occupy similar positions but lack the dense substratum. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Skerry, very bouldery: no
Hydrologic group:
    Skerry, very bouldery: B/D

Soil Properties and Qualities

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: medium
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from gneiss
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
    2 to 4 inches: extremely acid to slightly acid (3.5 to 6.5)
    4 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
    5 to 9 inches: extremely acid to slightly acid (3.5 to 6.5)
    9 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
    15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
    26 to 38 inches: extremely acid to slightly acid (3.5 to 6.5)
    38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
    0 to 2 inches: moderately rapid or rapid (2 to 20 inches/hour)
    2 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    4 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    5 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    26 to 38 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of surface boulders and stones.

Pasture
- Erosion control is needed when pastures are renovated.
- Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations caused by very bouldery or extremely stony surface conditions.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.

- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

StA—Stafford fine sandy loam, 0 to 3 percent slopes

Setting

This soil is sandy, very deep, nearly level, and somewhat poorly drained. It is on footslopes and toeslopes of proglacial deltas in the Champlain Valley. Areas range from 3 to 135 acres in size.

Map Unit Composition

Major Components
Stafford: 85 percent

Inclusions
Deerfield: 5 percent
Gougeville: 4 percent
Tonawanda: 3 percent
Cosad: 2 percent
Claverack: 1 percent

The moderately well drained Deerfield and Claverack, poorly drained Gougeville, Tonawanda, and Cosad soils may be included in areas of this map unit. Deerfield and Claverack soils occupy higher positions, and Claverack soils are sandy over clayey. Gougeville soils occupy slightly lower positions. Tonawanda and Cosad soils occupy similar positions, but Tonawanda soils are silty, and Cosad soils are sandy over clayey. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
  Stafford: no
Hydrologic group:
  Stafford: A/D

Soil Properties and Qualities

Stafford
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 10 inches: very strongly acid to neutral (4.5 to 7.3)
  10 to 20 inches: extremely acid to slightly acid (3.5 to 6.5)
  20 to 32 inches: extremely acid to neutral (3.5 to 7.3)
  32 to 72 inches: strongly acid to neutral (5.1 to 7.3)
Permeability:
  0 to 10 inches: moderately rapid or rapid (2 to 20 inches/hour)
  10 to 20 inches: rapid (6 to 20 inches/hour)
  20 to 32 inches: rapid (6 to 20 inches/hour)
  32 to 72 inches: rapid or very rapid (6 to 60 inches/hour)

Use and Management

Cropland
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.

Pasture
- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.

- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: The StA map unit has reaction in the lower part that is slightly out of the range of the Stafford series. This should not significantly affect use and management on a local basis for most purposes.

SuA—Sun silt loam, 0 to 3 percent slopes

Setting

This soil is loamy, very deep, nearly level, and poorly drained. It is on toeslopes of till plains and drumlinoid ridges in the Champlain Valley. Areas range from 3 to 35 acres in size.

Map Unit Composition

Major Components
Sun: 85 percent

Inclusions
Massena: 5 percent
Whallonsburg: 4 percent
Covington: 3 percent
Unnamed: 3 percent

The somewhat poorly drained Massena, Whallonsburg, and Covington soils may be included in areas of this map unit. Also included are areas that have a very stony surface. Massena soils occupy higher positions. Whallonsburg soils occupy lower positions, and are mucky over clayey. Covington soils occupy similar positions, but are clayey. Included areas make up about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 4w
Hydric soil rating:
 Sun: yes
Hydrologic group:
 Sun: A/D

Soil Properties and Qualities

Sun
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 0 to 12 inches
 Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: till plains, drumlinoid ridges
Parent material: loamy lodgment till derived from limestone
Reaction (pH):
 0 to 3 inches: very strongly acid to neutral (4.5 to 7.3)
 3 to 11 inches: strongly acid to neutral (5.1 to 7.3)
 11 to 15 inches: moderately acid to neutral (5.6 to 7.3)
 15 to 25 inches: moderately acid to neutral (5.6 to 7.3)
 25 to 40 inches: moderately acid to neutral (5.6 to 7.3)
 40 to 54 inches: neutral to moderately alkaline (6.6 to 8.4)
 54 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
 0 to 3 inches: moderately slow to rapid (0.2 to 20 inches/hour)
 3 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 11 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 15 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 25 to 40 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 40 to 54 inches: slow (0.06 to 0.2 inches/hour)
 54 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

- These soils are poorly suited to cultivated crops due to the seasonal high water table.
- The root system of some deep-rooted crops may be damaged by frost action.

Pasture

- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland

- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness.
- Areas of poorly drained or very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: The Sun SuA map unit has a firm C horizon below the Cd that is not within the range of the Sun series. This should not significantly affect the use and management on a local basis.

TaA—Tahawus peat, 0 to 5 percent slopes, very bouldery

Setting

This soil is sandy, very deep, nearly level, and very poorly drained. It is on toeslopes of till plains in the Adirondack Upland. Areas range from 3 to 165 acres in size.

Map Unit Composition

Major Components
Tahawus, very bouldery: 85 percent

Inclusions
Adirondack: 5 percent
Burnt Vly: 5 percent
Unnamed: 3 percent
Sunapee: 2 percent

The somewhat poorly drained Adirondack, Burnt Vly, and moderately well drained Sunapee soils may be included in areas of this map unit. Also included are areas that have an extremely bouldery surface. Adirondack and Sunapee soils occupy higher positions, both are loamy, and Adirondack soils have a dense substratum. Burnt Vly soils occupy similar positions, but are mucky over sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Tahawus, very bouldery: yes
Hydrologic group:
  Tahawus, very bouldery: B/D

Soil Properties and Qualities

Tahawus, very bouldery
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated till plains
Parent material: sandy till derived from gneiss
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5)
  2 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
  5 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)

9 to 17 inches: very strongly acid to slightly acid (4.5 to 6.5)
17 to 24 inches: moderately acid to neutral (5.6 to 7.3)
24 to 72 inches: moderately acid to neutral (5.6 to 7.3)

Permeability:
0 to 2 inches: moderately slow to rapid (0.2 to 20 inches/hour)
2 to 5 inches: moderately slow to rapid (0.2 to 20 inches/hour)
5 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
9 to 17 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
17 to 24 inches: moderately rapid to very rapid (2 to 100 inches/hour)
24 to 72 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture due to ponding.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Areas of poorly drained and very poorly drained soils and areas of soils that are subject to ponding should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.

Septic Tank Absorption Fields
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets

- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

TeA—Typic Endoaquolls, nearly level, very stony

Setting

This soil is loamy, very deep, nearly level, and poorly drained. It is on toeslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 3 to 85 acres in size.

Map Unit Composition

Major Components
Typic Endoaquolls, very stony: 85 percent

Inclusions
Wonsqueak: 4 percent
Malone: 3 percent
Wegatchie: 3 percent
Searsport: 2 percent
Tahawus: 2 percent
Unnamed: 1 percent

The Wonsqueak, somewhat poorly drained Malone, poorly drained Wegatchie, Searsport, and Tahawus soils may be included in areas of this map unit. Also included are areas that have an extremely stony surface. Wonsqueak, Searsport, and Tahawus soils occupy slightly lower positions, Wonsqueak soils are mucky over loamy, Searsport and Tahawus soils are sandy, and Searsport soils are underlain by outwash. Malone soils occupy higher positions. Wegatchie soils occupy similar positions but are silty and clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Typic Endoaquolls, very stony: yes
Hydrologic group:
  Typic Endoaquolls, very stony: B/D

Soil Properties and Qualities

Typic Endoaquolls, very stony
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none

Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very stony
Landform: glaciated hillside or mountainsides
Parent material: loamy lodgment till derived from igneous and sedimentary rock
Reaction (pH):
  0 to 10 inches: slightly acid or neutral (6.1 to 7.3)
  10 to 15 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  15 to 24 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  24 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
  0 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  10 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  15 to 24 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  24 to 72 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture due to ponding.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Areas of poorly drained and very poorly drained soils and areas of soils that are subject to ponding should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.

Septic Tank Absorption Fields
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets
- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: The TeA map unit is at the Taxon above Family. It was intended to be the Runeberg series. While it fits the classification of the Runeberg series, the properties of the Minnesota based series do not fit the Essex County climate, elevation, water table, and permeability.

ToA—Tonawanda silt loam, 0 to 3 percent slopes

Setting

These soils are silty, very deep, nearly level, and somewhat poorly drained. They are on footslopes of lake plains in the Champlain Valley. Areas range from 3 to 135 acres in size.

Map Unit Composition

Major Components
Tonawanda: 85 percent

Inclusions
Stafford: 5 percent
Niagara: 4 percent
Gougeville: 3 percent
Hartland: 2 percent
Unnamed: 1 percent

The Stafford, Niagara, poorly drained Gougeville, and well drained Hartland soils may be included in areas of this map unit. Also included are small areas of moderately well drained silty soils. Dunkirk, Stafford and Niagara soils occupy similar positions, but Stafford soils are sandy, and Niagara soils are silty and clayey. Gougeville soils occupy lower positions and are sandy. Hartland soils occupy higher positions. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
    Tonawanda: no
Hydrologic group:
    Tonawanda: A/D

Soil Properties and Qualities

Tonawanda
Drainage class: somewhat poorly drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: very high
Landform: lake plains
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 9 inches: strongly acid to neutral (5.1 to 7.3)
9 to 14 inches: strongly acid to neutral (5.1 to 7.3)
14 to 22 inches: strongly acid to neutral (5.1 to 7.3)
22 to 72 inches: moderately acid to slightly alkaline (5.6 to 7.8)
Permeability:
0 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
22 to 72 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland
- Systematic subsurface drainage may extend the period of planting and harvesting of crops.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture
- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.

- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

TuC—Tunbridge-Lyman complex, 8 to 15 percent slopes, very rocky, very bouldery

Setting

These soils are loamy, moderately deep and shallow, strongly sloping, and well drained. They are on summits, shoulders, and backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 3 to 165 acres in size.

Map Unit Composition

Major Components
Tunbridge, very rocky, very bouldery: 45 percent
Lyman, very rocky, very bouldery: 30 percent

Inclusions
Becket: 5 percent
Monadnock: 5 percent
Rock outcrop: 5 percent

Skerry: 5 percent
Knob Lock: 3 percent
Rawsonville: 2 percent

The Becket, Monadnock, Knob Lock, Rawsonville, and moderately well drained Skerry soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Becket, Monadnock, Knob Lock and Rawsonville soils occupy similar positions, but Becket and Monadnock soils are very deep to bedrock and Monadnock soils are loamy over sandy or gravelly, Knob Lock soils are organic and very shallow to shallow, and Rawsonville soils have more organic matter in the subsoil. Skerry soils are on small depressions or drainageways, and are very deep to bedrock. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Tunbridge, very rocky, very bouldery: no
  Lyman, very rocky, very bouldery: no
Hydrologic group:
  Tunbridge, very rocky, very bouldery: ?
  Lyman, very rocky, very bouldery: D

Soil Properties and Qualities

Tunbridge, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
  7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
  18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
  27 inches, bedrock
Permeability:
  0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
  1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  27 inches, bedrock

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
 0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
 3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
 9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
 18 inches, bedrock
Permeability:
 0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
 1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
 18 inches, bedrock

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the rock outcrops.

Pasture
- Erosion control is needed when pastures are renovated.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations due to moderately deep and shallow soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery or extremely stony surface conditions.

- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

TuD—Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

These soils are loamy, moderately deep and shallow, moderately steep and steep, and well drained. They are on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland (fig. 23). Areas range from 3 to 385 acres in size.

Figure 23.—This photo illustrates the depth to bedrock in Tunbridge-Lyman map units. The moderately deep Tunbridge soils lie to the right and under the tile spade. Depth to bedrock thins out to the left of the spade where the shallow Lyman soils lie. Timber production is moderate on these soils for White Pine, Red Pine, and Northern Red Oak. Native fertility is low, and trees may suffer moisture stress in dry years on shallower soils. Special care should be taken during timber harvesting operations to protect bedrock controlled soils from damage and accelerated erosion. These soils have severe limitations for residential development and local roads and streets because of the shallow depths to bedrock.

Map Unit Composition

Major Components

Tunbridge, very rocky, very bouldery: 45 percent
Lyman, very rocky, very bouldery: 30 percent

Inclusions

Knob Lock: 7 percent
Rock outcrop: 7 percent
Becket: 3 percent
Monadnock: 3 percent

Rawsonville: 3 percent
Nehasne: 2 percent

The Knob Lock, Becket, Monadnock, Rawsonville, and Nehasne soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Knob Lock, Becket, Monadnock, Rawsonville, and Nehasne soils occupy similar positions, but Knob Lock soils are organic and very shallow to shallow, Becket and Monadnock soils are very deep to bedrock and Monadnock soils are loamy over sandy or gravelly, Rawsonville soils have more organic matter in the subsoil, and Nehasne soils lack a spodic horizon and have a higher pH. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
Tunbridge, very rocky, very bouldery: no
Lyman, very rocky, very bouldery: no
Hydrologic group:
Tunbridge, very rocky, very bouldery: ?
Lyman, very rocky, very bouldery: D

Soil Properties and Qualities

Tunbridge, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
27 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 inches, bedrock

Lyman, very rocky, very bouldery

Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
- 0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
- 0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
- 1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
- 9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
- 18 inches, bedrock

Permeability:
- 0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
- 1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 18 inches, bedrock

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of the rock outcrops.

Pasture

- The slope may restrict the use of most farm equipment.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.
- Rock outcrops and large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by moderately deep and shallow soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations caused by very bouldery or extremely stony surface conditions.
- Constructing log landings on less sloping soils is recommended.

- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations due to steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

TuF—Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

These soils are loamy, moderately deep and shallow, very steep, and well drained. They are on backslopes of glaciated hillsides or mountainsides in the Adirondack Upland. Areas range from 3 to 355 acres in size.

Map Unit Composition

Major Components
Tunbridge, very rocky, very bouldery: 45 percent
Lyman, very rocky, very bouldery: 30 percent

Inclusions
Rock outcrop: 9 percent
Knob Lock: 8 percent
Monadnock: 3 percent
Rawsonville: 3 percent
Becket: 2 percent

The Knob Lock, Monadnock, Rawsonville, and Becket soils may be included in areas of this map unit. Also included are areas of very shallow mineral soils. Knob Lock, Monadnock, Rawsonville, and Becket soils occupy similar positions, but Knob Lock soils are organic and are very shallow to shallow; Becket and Monadnock soils are very deep to bedrock and Monadnock soils are loamy over sandy or gravelly; and Rawsonville soils have more organic matter in the subsoil. Included areas can occupy about 25 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Tunbridge, very rocky, very bouldery: no
  Lyman, very rocky, very bouldery: no
Hydrologic group:
  Tunbridge, very rocky, very bouldery: B
  Lyman, very rocky, very bouldery: D

Soil Properties and Qualities

Tunbridge, very rocky, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
  1 to 3 inches: ultra acid or extremely acid (1.8 to 4.4)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)

4 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
7 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
18 to 27 inches: strongly acid to slightly acid (5.1 to 6.5)
27 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 4 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
4 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 inches, bedrock

Lyman, very rocky, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface runoff potential: very high
Surface fragment cover: very bouldery
Landform: glaciated hillside or mountainsides
Parent material: loamy till derived from gneiss
Reaction (pH):
0 to 0 inches: ultra acid or extremely acid (1.8 to 4.4)
0 to 1 inch: ultra acid or extremely acid (1.8 to 4.4)
1 to 2 inches: ultra acid or extremely acid (1.8 to 4.4)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
9 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 18 inches: extremely acid to moderately acid (3.5 to 6.0)
18 inches, bedrock

Permeability:
0 to 0 inches: moderately rapid or rapid (2 to 20 inches/hour)
0 to 1 inch: moderately rapid or rapid (2 to 20 inches/hour)
1 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 13 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
13 to 18 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
18 inches, bedrock

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of the slope, the erosion hazard, and the rock outcrops.

Pasture

- These soils are generally not recommended for pasture.

Woodland

- Avoiding construction of haul roads on slopes exceeding 35 percent is recommended.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations caused by moderately deep and shallow soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by very steep slopes.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations caused by very bouldery or extremely stony surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The somewhat limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater.
- Large rock fragments on the surface may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

UlC—Udorthents, nearly level through strongly sloping

Setting

This map unit consists of disturbed areas that are made up of old abandoned industrial sites, closed landfills, borrow pits, or construction sites. These areas are usually reclaimed with native soil material and smoothed, but may contain or be underlain by refuse, construction and demolition debris, or other waste. They are relatively few in number and scattered throughout the county. Areas range from 3 to 125 acres in size.

Map Unit Composition

Major Components
Udorthents: 100 percent

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 8
Hydric soil rating:
  Udorthents: no
Hydrologic group:
  Udorthents: C

Soil Properties and Qualities

Udorthents
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: variable
Potential frost action: variable
Shrink-swell potential: variable
Surface runoff potential: variable
Landform: anthropogenic terraces
Parent material: mine spoil, earthy fill, refuse
Reaction (pH):
  0 to 2 inches: strongly acid to moderately alkaline (5.1 to 8.4)
  2 to 21 inches: strongly acid to moderately alkaline (5.1 to 8.4)
  21 to 72 inches: strongly acid to moderately alkaline (5.1 to 8.4)
Permeability:
  0 to 2 inches: slow to rapid (0.06 to 20 inches/hour)
  2 to 21 inches: slow to rapid (0.06 to 20 inches/hour)
  21 to 72 inches: slow to rapid (0.06 to 20 inches/hour)

Use and Management

Cropland
- These areas are generally unsuited to use as cropland because of the uncertain nature of the parent material.

Pasture
- These areas are generally unsuited to use as pasture because of the uncertain nature of the parent material.

Woodland
- Some areas, with the exception of closed landfills, may be reclaimed for commercial woodland use. Onsite investigation is needed to determine tree species to plant, and various conservation practices to employ.

Development
- These areas are generally unsuited for most development purposes because of the uncertain nature of the parent material.

Local Roads and Streets
- Onsite investigation is needed to determine the suitability of these areas for local roads and streets because of the uncertain nature of the parent material.

UmF—Udorthents, mine spoil, nearly level through very steep

This map unit consists of small to large man-made hills adjacent to inactive open pit and shaft mining operations, and are made up of waste mining debris removed from the pits or shafts. The mine spoil is generally sandy, excessively drained, and can be extremely stony or bouldery. These areas may be reclaimed with non-native or local soil material and smoothed. Most of these areas are located in the towns of Newcomb and Moriah. Areas range from 3 to 635 acres in size.

Map Unit Composition

Major Components
Udorthents, mine spoil: 100 percent

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 8
Hydric soil rating:
  Udorthents, mine spoil: no
Hydrologic group:
  Udorthents, mine spoil: A

Soil Properties and Qualities

Udorthents, mine spoil
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: medium

Landform: anthropogenic terraces
Parent material: sandy and gravelly metal ore extraction mine spoil derived from gneiss
Reaction (pH):
0 to 5 inches: moderately acid to slightly alkaline (5.6 to 7.8)
5 to 9 inches: moderately acid to neutral (5.6 to 7.3)
9 to 72 inches: slightly acid to strongly alkaline (6.1 to 9.0)
Permeability:
0 to 5 inches: slow to moderate (0.06 to 2 inches/hour)
5 to 9 inches: slow to moderate (0.06 to 2 inches/hour)
9 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
- These areas are generally unsuited to use as cropland.

Pasture
- Some reclaimed areas may be used for pasture. Onsite investigation is needed to determine forage species to plant and various conservation practices to employ.

Woodland
- Some areas may be reclaimed for commercial woodland use. Onsite investigation is needed to determine tree species to plant and various conservation practices to employ.

Development
- Some areas may be reclaimed for development. Onsite investigation is needed to determine various engineering and conservation practices to employ.

VeB—Vergennes silty clay loam, 3 to 8 percent slopes

Setting

This soil is clayey, very deep, gently sloping, and moderately well drained. It is on summits and shoulders of lake plains in the Champlain Valley (fig. 24). Areas range from 3 to 375 acres in size.

Map Unit Composition

Major Components
Vergennes: 85 percent

Inclusions
Kingsbury: 5 percent
Cayuga: 4 percent
Claverack: 2 percent
Dunkirk: 2 percent
Unnamed: 2 percent

The somewhat poorly drained Kingsbury, Cayuga, Claverack, and well drained Dunkirk soils may be included in areas of this map unit. Also included are areas of moderately well drained soils that have a slightly lower clay content. Kingsbury soils occupy lower positions. Cayuga and Claverack soils occupy similar positions, but Cayuga soils are clayey over loamy, and Claverack soils are sandy over clayey. Dunkirk soils occupy slightly higher positions, and are silty and clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 2e

Hydric soil rating:
Vergennes: no
Hydrologic group:
Vergennes: D

Soil Properties and Qualities

Vergennes

Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: medium
Landform: lake plains
Parent material: clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
8 to 10 inches: very strongly acid to neutral (4.5 to 7.3)
10 to 22 inches: very strongly acid to neutral (4.5 to 7.3)
22 to 29 inches: moderately acid to slightly alkaline (5.6 to 7.8)
29 to 37 inches: moderately alkaline (7.9 to 8.4)

Figure 24.—This photo is a good example of a dissected and gently sloping lake plain with Vergennes silty clay loam soils in the town of Ticonderoga. These soils have high native fertility but are very clayey, with greater than 60 percent clay in the subsoil, and often 40 to 50 percent clay in the surface. Tillage at the proper moisture content (neither too wet, nor too dry) is essential to maintain good soil structure. Compaction can be a severe problem on these soils. Many of these terraces may be marine (Champlain Sea era) in origin. Pasture and hayland production on these soils are good.

37 to 45 inches: moderately alkaline (7.9 to 8.4)
45 to 72 inches: moderately alkaline (7.9 to 8.4)

Permeability:

0 to 8 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
8 to 10 inches: very slow or slow (0.001 to 0.2 inches/hour)
10 to 22 inches: very slow or slow (0.001 to 0.2 inches/hour)
22 to 29 inches: very slow or slow (0.001 to 0.2 inches/hour)
29 to 37 inches: impermeable or very slow (0 to 0.06 inches/hour)
37 to 45 inches: impermeable or very slow (0 to 0.06 inches/hour)
45 to 72 inches: impermeable or very slow (0 to 0.06 inches/hour)

Use and Management

Cropland

- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Clods may form if the soil is tilled when wet.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture

- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Limiting log landing and haul road construction and operation activities to dry or frozen ground conditions will help overcome limitations caused by clayey soils.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Limiting timber harvesting operations to dry or frozen ground conditions will help overcome harvest equipment operability limitations caused by clayey soils.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development

- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The restricted movement of fluids through these soils limits the absorption and proper treatment of the effluent from septic systems. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

VeC—Vergennes silty clay loam, 8 to 15 percent slopes

Setting

This soil is clayey, very deep, strongly sloping, and moderately well drained. It is on shoulders and backslopes of lake plains in the Champlain Valley. Areas range from 3 to 195 acres in size.

Map Unit Composition

Major Components
Vergennes: 85 percent

Inclusions
Cayuga: 4 percent
Dunkirk: 4 percent

Kingsbury: 4 percent
Unnamed: 3 percent

The Cayuga, well drained Dunkirk, and somewhat poorly drained Kingsbury soils may be included in areas of this map unit. Also included are areas of moderately well drained soils that have a slightly lower clay content. Cayuga soils occupy similar positions, but are clayey over loamy. Dunkirk soils occupy slightly higher positions, and are silty and clayey. Kingsbury soils occupy lower positions. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Vergennes: no
Hydrologic group:
  Vergennes: D

Soil Properties and Qualities

Vergennes
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: medium
Landform: lake plains
Parent material: clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
  8 to 10 inches: very strongly acid to neutral (4.5 to 7.3)
  10 to 22 inches: very strongly acid to neutral (4.5 to 7.3)
  22 to 29 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  29 to 37 inches: moderately alkaline (7.9 to 8.4)
  37 to 45 inches: moderately alkaline (7.9 to 8.4)
  45 to 72 inches: moderately alkaline (7.9 to 8.4)
Permeability:
  0 to 8 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
  8 to 10 inches: very slow or slow (0.001 to 0.2 inches/hour)
  10 to 22 inches: very slow or slow (0.001 to 0.2 inches/hour)
  22 to 29 inches: very slow or slow (0.001 to 0.2 inches/hour)
  29 to 37 inches: impermeable or very slow (0 to 0.06 inches/hour)
  37 to 45 inches: impermeable or very slow (0 to 0.06 inches/hour)
  45 to 72 inches: impermeable or very slow (0 to 0.06 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Clods may form if the soil is tilled when wet.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse grained base material will help overcome suitability limitations caused by seasonal wetness. Riparian setbacks should be at least 200 feet.
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Limiting log landing and haul road construction and operation activities to dry or frozen ground conditions will help overcome limitations due to clayey soils.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Limiting timber harvesting operations to dry or frozen ground conditions will help overcome harvest equipment operability limitations caused by clayey soils.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when

excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause shifting foundations and cracking of basement walls and floors.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The restricted movement of fluids through these soils limits the absorption and proper treatment of the effluent from septic systems. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

VeD—Vergennes silty clay loam, 15 to 25 percent slopes

Setting

This soil is clayey, very deep, moderately steep, and moderately well drained. It is on backslopes of lake plains in the Champlain Valley. Areas range from 3 to 305 acres in size.

Map Unit Composition

Major Components
Vergennes: 85 percent

Inclusions
Dunkirk: 5 percent
Unnamed: 5 percent
Cayuga: 4 percent
Kingsbury: 1 percent

The well drained Dunkirk, Cayuga, and somewhat poorly drained Kingsbury soils may be included in areas of this map unit. Also included are areas of well drained clayey soils. Dunkirk soils occupy slightly higher positions, and are silty and clayey. Cayuga soils occupy similar positions, but are clayey over loamy. Kingsbury soils occupy lower positions. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Vergennes: no
Hydrologic group:
  Vergennes: D

Soil Properties and Qualities

Vergennes
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: high
Landform: lake plains
Parent material: clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
  8 to 10 inches: very strongly acid to neutral (4.5 to 7.3)
  10 to 22 inches: very strongly acid to neutral (4.5 to 7.3)
  22 to 29 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  29 to 37 inches: moderately alkaline (7.9 to 8.4)
  37 to 45 inches: moderately alkaline (7.9 to 8.4)
  45 to 72 inches: moderately alkaline (7.9 to 8.4)
Permeability:
  0 to 8 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
  8 to 10 inches: very slow or slow (0.001 to 0.2 inches/hour)
  10 to 22 inches: very slow or slow (0.001 to 0.2 inches/hour)
  22 to 29 inches: very slow or slow (0.001 to 0.2 inches/hour)
  29 to 37 inches: impermeable or very slow (0 to 0.06 inches/hour)
  37 to 45 inches: impermeable or very slow (0 to 0.06 inches/hour)
  45 to 72 inches: impermeable or very slow (0 to 0.06 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Subsurface drainage in low areas may extend the period of planting and harvesting of crops.
- Clods may form if the soil is tilled when wet.
- Controlling traffic during wet periods can minimize soil compaction.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Restricting grazing during wet periods can minimize compaction.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Limiting construction activities to dry or frozen ground conditions will help overcome construction limitations of haul roads caused by clayey soils.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Limiting timber harvesting operations to dry or frozen ground conditions will help overcome harvest equipment operability limitations caused by clayey soils.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause shifting foundations and cracking of basement walls and floors.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The restricted movement of fluids through these soils limits the absorption and proper treatment of the effluent from septic systems. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

VeE—Vergennes silty clay loam, 25 to 45 percent slopes

Setting

This soil is clayey, very deep, very steep, and moderately well drained. It is on backslopes of lake plains in the Champlain Valley. Areas range from 3 to 445 acres in size.

Map Unit Composition

Major Components
Vergennes: 85 percent

Inclusions
Unnamed: 7 percent
Dunkirk: 6 percent
Cayuga: 2 percent

The well drained Dunkirk, and Cayuga soils may be included in areas of this map unit. Also included are areas of well drained clayey soils. Dunkirk soils occupy slightly higher positions, and are silty and clayey. Cayuga soils occupy similar positions, but are clayey over loamy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6e

Hydric soil rating:
  Vergennes: no
Hydrologic group:
  Vergennes: D

Soil Properties and Qualities

Vergennes
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: very high
Surface runoff potential: high
Landform: lake plains
Parent material: clayey glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
  8 to 10 inches: very strongly acid to neutral (4.5 to 7.3)
  10 to 22 inches: very strongly acid to neutral (4.5 to 7.3)
  22 to 29 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  29 to 37 inches: moderately alkaline (7.9 to 8.4)
  37 to 45 inches: moderately alkaline (7.9 to 8.4)
  45 to 72 inches: moderately alkaline (7.9 to 8.4)
Permeability:
  0 to 8 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
  8 to 10 inches: very slow or slow (0.001 to 0.2 inches/hour)
  10 to 22 inches: very slow or slow (0.001 to 0.2 inches/hour)
  22 to 29 inches: very slow or slow (0.001 to 0.2 inches/hour)
  29 to 37 inches: impermeable or very slow (0 to 0.06 inches/hour)
  37 to 45 inches: impermeable or very slow (0 to 0.06 inches/hour)
  45 to 72 inches: impermeable or very slow (0 to 0.06 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- These soils are generally not recommended for pasture.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads caused by seasonal wetness.
- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads caused by steep slopes.
- Limiting construction activities to dry or frozen ground conditions will help overcome construction limitations of haul roads caused by clayey soils.

- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.
- Limiting timber harvesting operations to dry or frozen ground conditions will help overcome harvest equipment operability limitations caused by clayey soils.
- Restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard caused by seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems is advisable.
- Consult the Water Features table for months of seasonal saturation.

Development
- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.
- Excessive shrink-swell in these soils results in a severely limited capacity to support a load without movement and can cause shifting foundations and cracking of basement walls and floors.
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of the effluent from septic systems.
- The restricted movement of fluids through these soils limits the absorption and proper treatment of the effluent from septic systems. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils may not be suitable for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

W—Water

This map unit consists of areas of permanent surface water. It includes lakes, ponds, and perennial rivers and streams that were cartographically large enough to delineate at the scale of mapping.

WeA—Wegatchie silt loam, 0 to 3 percent slopes

Setting

This soil is silty and clayey, very deep, nearly level, and poorly drained. It is on toeslopes of glacial-valley walls in the Adirondack Upland. Areas range from 3 to 100 acres in size.

Map Unit Composition

Major Components
Wegatchie: 85 percent

Inclusions
Hailesboro: 5 percent
Roundabout: 4 percent
Searsport: 3 percent
Burnt Vly: 2 percent
Unnamed: 1 percent

The somewhat poorly drained Hailesboro and Roundabout, and very poorly drained Searsport and Burnt Vly soils may be included in areas of this map unit. Also included are areas of poorly drained sandy over clayey soils. Hailesboro and Roundabout soils occupy higher positions, and Roundabout soils are silty. Searsport and Burnt Vly soils occupy slightly lower positions, Searsport soils are sandy, and Burnt Vly soils are mucky over sandy. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4w
Hydric soil rating:
  Wegatchie: yes
Hydrologic group:
  Wegatchie: C/D

Soil Properties and Qualities

Wegatchie
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Surface runoff potential: very high
Landform: glacial-valley walls
Parent material: silty glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 8 inches: moderately acid to neutral (5.6 to 7.3)
  8 to 13 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  13 to 19 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  19 to 40 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  40 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 13 inches: slow to moderate (0.06 to 2 inches/hour)
  13 to 19 inches: slow to moderate (0.06 to 2 inches/hour)
  19 to 40 inches: slow to moderate (0.06 to 2 inches/hour)
  40 to 72 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are poorly suited to cultivated crops due to the seasonal high water table.
- The root system of some deep-rooted crops may be damaged by frost action.
- Controlling traffic during wet periods can minimize soil compaction.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
- Avoiding overgrazing can reduce the hazard of erosion.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Restricting grazing during wet periods can minimize compaction.
- Planting adapted species can minimize the root damage caused by frost action.
- The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Areas of poorly drained or very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations caused by wetness.

- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations caused by wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields
- The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field.
- The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.

WlA—Whallonsburg mucky peat, 0 to 2 percent slopes

Setting

This soil is mucky, very deep, nearly level, and very poorly drained. It is on swamps in the Champlain Valley. Areas range from 4 to 100 acres in size.

Map Unit Composition

Major Components
Whallonsburg: 85 percent

Inclusions
Catden: 5 percent
Livingston: 4 percent
Covington: 3 percent
Rippowam: 2 percent
Gougeville: 1 percent

The Catden, Livingston, and poorly drained Covington, Rippowam and Gougeville soils may be included in areas of this map unit. Also included are organic soils with higher woody fragment content. Catden and Livingston soils occupy similar positions, but Catden soils are greater than 51 inches deep to mineral soil material, and Livingston soils are clayey. Covington and Gougeville soils occupy slightly higher positions, Covington soils are clayey, and Gougeville soils are sandy. Rippowam soils are loamy and are on small flood plain areas near streams. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Whallonsburg: yes
Hydrologic group:
  Whallonsburg: C/D

Soil Properties and Qualities

Whallonsburg
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 16 to 51 inches to an abrupt textural change
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: very high
Surface runoff potential: negligible
Landform: swamps
Parent material: organic material over clayey glaciolacustrine deposits
Reaction (pH):
  0 to 2 inches: very strongly acid to neutral (4.5 to 7.3)
  2 to 12 inches: very strongly acid to neutral (4.5 to 7.3)
  12 to 20 inches: very strongly acid to neutral (4.5 to 7.3)
  20 to 23 inches: very strongly acid to neutral (4.5 to 7.3)
  23 to 30 inches: strongly acid to moderately alkaline (5.1 to 8.4)
  30 to 72 inches: strongly acid to moderately alkaline (5.1 to 8.4)
Permeability:
  0 to 2 inches: moderately slow to rapid (0.2 to 20 inches/hour)
  2 to 12 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  12 to 20 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  20 to 23 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  23 to 30 inches: impermeable to slow (0 to 0.2 inches/hour)
  30 to 72 inches: impermeable to slow (0 to 0.2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture due to ponding.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads caused by wetness.
- Areas of poorly drained or very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets
- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.
- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

- Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are limited for use as a base material. Adding coarse-textured subgrade material can help overcome this limitation.
- The low bearing strength of these soils is generally unfavorable for supporting heavy loads. Special design of local roads and streets is needed to prevent the structural damage caused by low soil strength.
- Subsidence of the organic material reduces the load-bearing capacity of these soils.

WnA—Windsor loamy sand, 0 to 3 percent slopes

Setting

This soil is sandy, very deep, nearly level, and excessively drained. It is on summits of proglacial deltas in the Champlain Valley. Areas range from 3 to 740 acres in size.

Map Unit Composition

Major Components
Windsor: 85 percent

Inclusions
Unnamed: 5 percent
Deerfield: 4 percent
Factoryville: 3 percent
Howard: 2 percent
Claverack: 1 percent

The moderately well drained Deerfield and Claverack, and well drained Factoryville and Howard soils may be included in areas of this map unit. Also included are areas of excessively drained sandy soils with a high gravel content. Deerfield and Claverack soils occupy slightly lower positions, and Claverack soils are sandy over clayey. Factoryville and Howard soils occupy similar positions, but Factoryville soils have finer sand textures, and Howard soils are loamy and gravelly. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 3s
Hydric soil rating:
  Windsor: no
Hydrologic group:
  Windsor: A

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock

Reaction (pH):
0 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
10 to 14 inches: very strongly acid to slightly acid (4.5 to 6.5)
14 to 19 inches: very strongly acid to slightly acid (4.5 to 6.5)
19 to 24 inches: very strongly acid to slightly acid (4.5 to 6.5)
24 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 10 inches: rapid or very rapid (6 to 60 inches/hour)
10 to 14 inches: rapid or very rapid (6 to 60 inches/hour)
14 to 19 inches: rapid or very rapid (6 to 60 inches/hour)
19 to 24 inches: rapid or very rapid (6 to 60 inches/hour)
24 to 72 inches: rapid or very rapid (6 to 60 inches/hour)

Use and Management

Cropland
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations caused by low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development
- Erosion and sediment control can be problems in some places where this map unit is cleared for development.
- Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

WnB—Windsor loamy sand, 3 to 8 percent slopes

Setting

This soil is sandy, very deep, gently sloping, and excessively drained. It is on summits and shoulders of proglacial deltas in the Champlain Valley. Areas range from 3 to 460 acres in size.

Map Unit Composition

Major Components
Windsor: 85 percent

Inclusions
Unnamed: 5 percent
Deerfield: 4 percent
Factoryville: 3 percent
Howard: 2 percent
Claverack: 1 percent

The moderately well drained Deerfield and Claverack, and well drained Factoryville and Howard soils may be included in areas of this map unit. Also included are areas of excessively drained sandy soils with a high gravel content. Deerfield and Claverack soils occupy slightly lower positions, and Claverack soils are sandy over clayey. Factoryville and Howard soils occupy similar positions, but Factoryville soils have finer sand textures, and Howard soils are loamy and gravelly. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 3s
Hydric soil rating:
  Windsor: no
Hydrologic group:
  Windsor: A

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
  10 to 14 inches: very strongly acid to slightly acid (4.5 to 6.5)
  14 to 19 inches: very strongly acid to slightly acid (4.5 to 6.5)
  19 to 24 inches: very strongly acid to slightly acid (4.5 to 6.5)
  24 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 10 inches: rapid or very rapid (6 to 60 inches/hour)
  10 to 14 inches: rapid or very rapid (6 to 60 inches/hour)
  14 to 19 inches: rapid or very rapid (6 to 60 inches/hour)
  19 to 24 inches: rapid or very rapid (6 to 60 inches/hour)
  24 to 72 inches: rapid or very rapid (6 to 60 inches/hour)

Use and Management

Cropland
- Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- These soils are well suited to pasture.
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- These soils have no restrictions for development of dwellings with basements.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- These soils have no restrictions for development of local roads and streets.

WnC—Windsor loamy sand, 8 to 15 percent slopes

Setting

This soil is sandy, very deep, strongly sloping, and excessively drained. It is on shoulders and backslopes of proglacial deltas in the Champlain Valley. Areas range from 3 to 55 acres in size.

Map Unit Composition

Major Components
Windsor: 85 percent

Inclusions
Unnamed: 5 percent
Deerfield: 4 percent

Factoryville: 3 percent
Howard: 2 percent
Claverack: 1 percent

The moderately well drained Deerfield and Claverack, and well drained Factoryville and Howard soils may be included in areas of this map unit. Also included are areas of excessively drained sandy soils with a high gravel content. Deerfield and Claverack soils occupy slightly lower positions, and Claverack soils are sandy over clayey. Factoryville and Howard soils occupy similar positions, but Factoryville soils have finer sand textures, and Howard soils are loamy and gravelly. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4s
Hydric soil rating:
Windsor: no
Hydrologic group:
Windsor: A

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: very low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
0 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
10 to 14 inches: very strongly acid to slightly acid (4.5 to 6.5)
14 to 19 inches: very strongly acid to slightly acid (4.5 to 6.5)
19 to 24 inches: very strongly acid to slightly acid (4.5 to 6.5)
24 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 10 inches: rapid or very rapid (6 to 60 inches/hour)
10 to 14 inches: rapid or very rapid (6 to 60 inches/hour)
14 to 19 inches: rapid or very rapid (6 to 60 inches/hour)
19 to 24 inches: rapid or very rapid (6 to 60 inches/hour)
24 to 72 inches: rapid or very rapid (6 to 60 inches/hour)

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.
- Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland
- Seeding cut and fill areas after grading and leveling, applying gravel base material, and maintaining 200 foot riparian buffers will help overcome limitations of log landing suitability caused by strongly sloping areas.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
- Erosion and sediment control can be problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
- The slope influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

WnD—Windsor loamy sand, 15 to 25 percent slopes

Setting

This soil is sandy, very deep, moderately steep, and excessively drained. It is on backslopes of proglacial deltas in the Champlain Valley. Areas range from 3 to 80 acres in size.

Map Unit Composition

Major Components
Windsor: 85 percent

Inclusions
Unnamed: 5 percent
Howard: 4 percent
Factoryville: 3 percent
Deerfield: 2 percent
Claverack: 1 percent

The well drained Factoryville and Howard, and moderately well drained Deerfield and Claverack soils may be included in areas of this map unit. Also included are areas of excessively drained sandy soils with a high gravel content. Factoryville and Howard soils occupy similar positions, but Factoryville soils have finer sand textures, and Howard soils are loamy and gravelly. Deerfield and Claverack soils occupy slightly lower positions, and Claverack soils are sandy over clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Windsor: no
Hydrologic group:
  Windsor: A

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
  10 to 14 inches: very strongly acid to slightly acid (4.5 to 6.5)
  14 to 19 inches: very strongly acid to slightly acid (4.5 to 6.5)
  19 to 24 inches: very strongly acid to slightly acid (4.5 to 6.5)
  24 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 10 inches: rapid or very rapid (6 to 60 inches/hour)
  10 to 14 inches: rapid or very rapid (6 to 60 inches/hour)
  14 to 19 inches: rapid or very rapid (6 to 60 inches/hour)
  19 to 24 inches: rapid or very rapid (6 to 60 inches/hour)
  24 to 72 inches: rapid or very rapid (6 to 60 inches/hour)

Use and Management

Cropland
- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture
- Erosion control is needed when pastures are renovated.
- Avoiding overgrazing can reduce the hazard of erosion.
- Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations due to steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

WnE—Windsor loamy sand, 25 to 45 percent slopes

Setting

This soil is sandy, very deep, very steep, and excessively drained. It is on backslopes of proglacial deltas in the Champlain Valley. Areas range from 3 to 215 acres in size.

Map Unit Composition

Major Components
Windsor: 85 percent

Inclusions
Unnamed: 5 percent
Factoryville: 4 percent
Howard: 4 percent
Claverack: 1 percent
Deerfield: 1 percent

The well drained Factoryville and Howard, and moderately well drained Deerfield and Claverack soils may be included in areas of this map unit. Also included are areas of excessively drained sandy soils with a high gravel content. Factoryville and Howard soils occupy similar positions, but Factoryville soils have finer sand textures, and Howard soils are loamy and gravelly. Deerfield and Claverack soils occupy slightly lower positions, and Claverack soils are sandy over clayey. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Windsor: no
Hydrologic group:
  Windsor: A

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Surface runoff potential: low
Landform: proglacial deltas
Parent material: sandy glaciolacustrine deposits derived from igneous and sedimentary rock
Reaction (pH):
  0 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
  10 to 14 inches: very strongly acid to slightly acid (4.5 to 6.5)
  14 to 19 inches: very strongly acid to slightly acid (4.5 to 6.5)
  19 to 24 inches: very strongly acid to slightly acid (4.5 to 6.5)
  24 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 10 inches: rapid or very rapid (6 to 60 inches/hour)
  10 to 14 inches: rapid or very rapid (6 to 60 inches/hour)
  14 to 19 inches: rapid or very rapid (6 to 60 inches/hour)
  19 to 24 inches: rapid or very rapid (6 to 60 inches/hour)
  24 to 72 inches: rapid or very rapid (6 to 60 inches/hour)

Use and Management

Cropland

- These soils are generally unsuited to use as cropland because of the slope and the erosion hazard.

Pasture

- These soils are generally not recommended for pasture.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, out sloping of roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.
- Applying gravel base material during construction of haul roads will help overcome limitations caused by sandy surface layers.
- Constructing log landings on less sloping soils is recommended.
- Traversing slopes with trails that maintain grades of 10 percent or less and winching logs to these main skid trails will help overcome harvest equipment operability limitations caused by steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and down slopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of seasonal saturation or unusually wet conditions will help reduce the rutting hazard.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

- Erosion and sediment control can be severe problems where this map unit is cleared for development.
- Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

- The slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

- The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area near the absorption field.
- Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized.
- Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

- The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

WoA—Wonsqueak muck, 0 to 2 percent slopes

Setting

This soil is mucky, very deep, nearly level, and very poorly drained. It is on bogs and swamps in the Adirondack Upland. Areas range from 4 to 350 acres in size.

Map Unit Composition

Major Components
Wonsqueak: 85 percent

Inclusions
Bucksport: 5 percent
Typic Endoaquolls: 4 percent
Wegatchie: 3 percent
Rumney: 2 percent
Unnamed: 1 percent

The Bucksport, Typic Endoaquolls, and poorly drained Wegatchie and Rumney soils may be included in areas of this map unit. Also included are organic soils with higher woody fragment content. Bucksport and Typic Endoaquolls soils occupy similar positions, but Bucksport soils are greater than 51 inches deep to mineral soil material, and Typic Endoaquolls soils are loamy. Wegatchie soils occupy slightly higher positions and are silty and clayey. Rumney soils are loamy and are on small flood plain areas near streams. Included areas can occupy about 15 percent of this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
    Wonsqueak: yes
Hydrologic group:
Wonsqueak: B/D

Soil Properties and Qualities

Wonsqueak
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface runoff potential: negligible
Landform: bogs, swamps
Parent material: organic material over loamy till
Reaction (pH):
    0 to 12 inches: extremely acid to slightly acid (4.0 to 6.5)
    12 to 25 inches: extremely acid to slightly acid (4.0 to 6.5)
    25 to 29 inches: neutral or slightly alkaline (6.6 to 7.8)
    29 to 72 inches: neutral or slightly alkaline (6.6 to 7.8)
Permeability:
    0 to 12 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

12 to 25 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
25 to 29 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
29 to 72 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
- These soils are generally unsuited to cultivated crops due to ponding.

Pasture
- These soils are poorly suited to pasture due to ponding.

Woodland
- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness.
- Areas of poorly drained or very poorly drained soils should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard caused by wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Consult the Water Features table for months of seasonal saturation.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
- Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may be restricted and intensive construction site development and building maintenance may be needed.
- The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields
- Because of ponding, these soils are very limited as a site for septic tank absorption fields.

Local Roads and Streets
- These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the road bed may help reduce this limitation.

- Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.
- Subsidence of the organic material reduces the load-bearing capacity of these soils.

Prime Farmland

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

The survey area contains about 27,487 acres of prime farmland. That acreage makes up about 2.4 percent of the land area, and is located mainly in the Champlain Valley. Most of the active agricultural land remaining in the county today is prime farmland or farmland of statewide importance.

The map units in the survey area that are considered prime farmland are listed in table 5. This list does not constitute a recommendation for a particular land use. On some soils included in the list, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in table 4.

Also listed in the table are map units that are considered additional "Farmland of Statewide Importance." This farmland is an important part of the agricultural resource base in the area, but it does not meet the requirements for prime farmland. It is seasonally wet, cannot be easily cultivated, is more erodible than prime farmland, or is usually less productive than prime farmland. The location is shown on the detailed soil maps. The soil qualities that affect use and management are described under the heading "Detailed Soil Map Units."

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; and for agricultural waste management. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of sand and gravel, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited, somewhat limited,* and *very limited*. The suitability ratings are expressed as *well suited, moderately suited, poorly suited,* and *unsuited* or as *good, fair,* and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate

gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

Anita Deming, Executive Director of Cornell Cooperative Extension of Essex County, New York, helped to prepare this section.

Essex County has a long agricultural history. We have farms that have been productive since the French built Fort St. Frederic in Crown Point in 1734. Our land is rural and will stay rural as we are entirely within the protected Adirondack Park. We incorporate the fertile Champlain Valley, and several river valleys with a backdrop of beauty unrivaled in the Northeast. Our farms are small, independent operations with a wide range of products. History and scenic beauty meet in the Adirondacks.

Our soils are extremely diverse with lake-laid clays, stream terraces, bottom land alluvial deposits, and high lime calcareous glacial till in the Champlain Valley; acid till and glacial outwash as you move upland toward the Adirondack Mountains, and alluvial plain soils in the river valleys.

The topography ranges from 100 feet above sea level in the Champlain Valley to the top of Mount Marcy at 5,344 feet above sea level. Our USDA hardiness zones are 4a and 4b ranging from -20 degrees F to -30 degrees F. In our primary agricultural areas the average date of last frost is May 20 and first frost is Sept 30, giving a 140 day freeze-free season and 210 growing degree days (base 50 degrees F). The average May to September rainfall is 16 inches.

Agricultural Industry

- Diverse wholesale agriculture includes: dairy, apples, maple, potatoes, and organic grains (fig. 25).
- We also support a wide variety of direct market farms, that sell to a strong tourist industry seeking high-quality unusual products sold through local restaurants and stores.

Agricultural Support Services

- Three agricultural research stations Field Crops, Potatoes, and Maple, offer state-of-the art consultation for producers.
- A regional fruit specialist offers specialized programming for apples, small fruit, and grapes.
- Champlain Valley Milling, an organic grain mill, is located in Westport.
- Strong agricultural support services surround us in Addison County, Vermont and Clinton and Washington counties in New York.
- Adirondack Harvest promotes our products throughout the region and beyond.
- We have 54,000 acres in New York State approved agricultural districts (fig. 26).

Strong Markets

- Our image is one of a pure, wholesome environment that produces quality products inside the Adirondack Park.
- The Adirondacks see over 10 million visitors a year, and residents support local food options.
- You can easily reach New York City, Boston, or Montreal with a five hour or less trip by Interstate.
- For more information on opportunities in Essex County check our websites. http://counties.cce.cornell.edu/essex/ and www.adirondackharvest.com

Figure 25.—Black Angus cattle in the town of Willsboro. The soils are Vergennes silty clay loam.

Figure 26.—Alfalfa production in the town of Essex. The soils are Vergennes silty clay loam.

Managing Cropland

General management needed for crops and pasture is suggested in this section. Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading "Detailed Soil Map Units." Specific information can be obtained from the local office of the Natural Resources Conservation Service, or Cornell Cooperative Extension of Essex County.

The total land in farms and number of farms within Essex County in 2002 was 55,022 acres on 236 farms, making up about 5 percent of the land area of the county (US Census of Agriculture, 2002). Approximately 50 percent of that total, or 27,433 acres was cropland or permanent pasture. The remaining 27,567 acres was woodland or other land. Dairy products led total sales in 2002 with $4,241,000 or about 49 percent of agricultural sales, ranking 47 of 62 counties in the state. Hay and other crops ranked next with $1,378,000 or 16 percent of sales. Other products, including maple syrup, seed potato, and beef production, were next with $949,000 in sales or 11 percent. This was followed by vegetables with $871,000 in sales or 10 percent and orchards with $628,000 in sales or 7 percent of the total sales. Finally, nursery and greenhouse was $565,000 or 7 percent of total agricultural sales (NYASS, 2002).

The acreage in crops and pasture has declined steadily in the last few decades due to nonfarm development and idling. There is a continuing trend towards fewer but larger farms. This is similar to national trends.

Some general principles of crop production in Essex County are described in the following paragraphs.

Erosion can be a hazard on about two thirds of the potential cropland in the county. Potential cropland for this discussion has slopes not exceeding 15 percent, does not have a very stony or bouldery surface, and is not poorly drained or very poorly drained (hydric). About 35 percent of the potential cropland in the county is not highly erodible, 50 percent is potentially highly erodible, and about 15 percent is rated as highly erodible. The rate of erosion is related to the slope length and steepness of the land, the soil type and texture, the amount and intensity of the rainfall, and the type and density of vegetative cover. Vergennes, Amenia, and Pittsfield soils on 3 to 8 percent slopes are rated as potentially highly erodible, while these same soils on 8 to 15 percent slopes are rated as highly erodible. Kingsbury soils on 0 to 3 percent slopes are not highly erodible. Windsor soils on 0 to 3, and 3 to 8 percent slopes are not highly erodible, while these same soils on 8 to 15 percent slopes are only potentially highly erodible. In general, silt loams are the most erodible, followed closely by silty clay loams and clays. Loams and sandy loams are intermediate in erodibility, and sandy soils have the lowest erosion hazard on comparable slopes.

Water erosion is characterized by three phases, sheet, rill, and gully, with the latter being the most drastic and damaging. Accelerated erosion results in the loss of plant nutrients and available soil moisture for plant growth, the formation of rills and gullies, deterioration of tilth and soil structure, sedimentation of downslope areas, and the pollution of water bodies. Accelerated soil erosion also affects wildlife and recreation resources and presents a cost of remediation and repair to local economies. Soil productivity decreases when the surface layer is lost and increasing amounts of subsoil are incorporated into the plow layer. This is especially true in areas of soils that have fine textured subsoil such as Vergennes soils, and soils with root restricting layers such as Amenia.

Erosion control is generally needed on soils that have slopes of greater than five percent. Soils that have a high content of silt and few or no rock fragments, such as Hartland and Dunkirk soils, are highly susceptible to water erosion. The erosion-control effectiveness of a single or group of conservation practices differs from one soil to another, and different combinations can be equally effective in some areas. Erosion

control practices provide protective cover, reduce the runoff rate, and increase the rate of water infiltration into the soil profile. The latter provides more water for plant growth. Many tillage and conservation practices help to control erosion, and a combination of practices is generally recommended especially as the degree and/or length of slope increases. The use of residue management practices, such as zone-till and mulch tillage, cover crops, and crop rotations that include grasses and legumes, are effective in protecting the soil surface and reducing erosion. Contour tillage, stripcropping, and the use of diversions break up the slope, reduce overland flow, and reduce the erosion hazard. Limiting the number of years of tillage in a corn-hay rotation will also help reduce the risk of erosion. A local representative of the Natural Resources Conservation Service or the Soil and Water Conservation District can assist in planning an effective combination of practices to reduce soil erosion.

Seasonal wetness may delay planting or cause crop damage in areas of somewhat poorly drained soils of the county. About 20 percent of the potential cropland in the county is made up of somewhat poorly drained areas of Kingsbury, Stafford, Cosad, Massena, and Malone soils. Drainage can be facilitated by surface or subsurface design systems, or a combination of both. Surface systems such as diversion ditches, divert upslope runoff away from low-lying areas. Subsurface systems entail burying drainage tile at regularly spaced intervals to remove internal soil water from wetter low-lying areas. Establishing drainage outlets is sometimes difficult and expensive because of the low position of these soils on the landscape. Soil texture affects internal drainage of soils. Kingsbury soils that have very high clay content and very slow internal drainage may require narrower spacing of tile lines in pattern drainage systems than loamy soils such as Massena with moderate internal drainage, and sandy soils such as Stafford with relatively rapid internal drainage (fig. 27). Benefits of drainage by removing excess water are: permits more efficient machine operations; limits planting delays from wetness; increases soil air supply for good root growth; increases the uptake of nutrients; permits use of heavy harvesting equipment; increases crop yields; and increases farm property values (Cornell University, 1987).

Figure 27.—Tile drainage in Massena soils in the town of Chesterfield. Loamy Massena soils respond well to tile drainage. Note the numerous stones in the excavated material.

Available water capacity is an important factor that affects crop growth. Some soils in the county tend to be droughty. Sandy and gravelly soils and soils that are shallow over bedrock tend to have a fairly low available water capacity. The sandy Windsor and Champlain, and the gravelly Colton soils have a very low available water capacity. Maintaining or increasing the content of organic matter and improving soil structure increase the available water capacity of these droughty soils. Cover crops that are incorporated during tillage operations, crop residue, and the addition of manure increase the organic matter content and improve soil structure and tilth.

Soil tilth is an important factor affecting the movement and storage of water, air, and nutrients. It affects the health of roots and other soil organisms. Good soil tilth reduces erosion and enhances ease of cultivation. Soils with good tilth generally have granular structure and are porous. The soils can be kept granular and porous by cultivating at the proper moisture content, by including sod and cover crops in the crop rotation, and by properly managing crop residue or adding manure to increase organic matter content.

Tillage operations can influence soil tilth. Excessive tillage tends to reduce the content of organic matter and break down soil structure. Excessively drained, coarse-textured soils such as Windsor, Adams, and Colton, can be tilled throughout a wide range in moisture content without significant deterioration of tilth. Tilling wetter and finer textured soils such as Vergennes, Kingsbury, Collamer, and Niagara at the proper moisture content, helps to prevent deterioration of soil structure and the formation of impervious subsurface plow pans. Tilling when such soils are wet, results in puddling and the formation of hard surface crusts. Also, clods usually develop as the soils dry. Cultivating the soils at the proper moisture content, incorporating cover and sod crops in the cropping system, returning crop residue to the soil, and adding manure to increase organic matter content, help to keep the soils granular and porous.

Compaction can be a serious problem on the marine or lake-laid clay soils found in the Champlain Valley. Vergennes, Kingsbury, Covington, and Livingston soils have very high clay content and make up the bulk of these soils. Compaction destroys soil structure greatly increasing bulk density. This in turn impedes root penetration and water and air movement through the soil. Water, air, and nutrient uptake by roots is delayed and crop yields are reduced or crops fail. Infiltration rates are reduced in compacted surfaces, and subsequent overland flow during storm events greatly increases the hazard of erosion. Compaction is generally caused by the load exerted on the soil surface by tractor wheels and by the tillage equipment itself, during tillage operations when the soils are too wet. As wetness increases, the bearing capacity of these heavy clay soils decreases. More intensively tilled soils have greater compaction problems. Some remedies that may be applied to address compaction problems are: use plow layer compaction—plow with moldboard or chisel plow, but reduce secondary tillage; apply primary tillage before winter if no erosion danger exists; use zone builders; increase organic matter editions; avoid subsoil compaction—don’t travel on soils that are wet; improve soil drainage; use deep tillage with a subsoiler; use cover crops or rotation crops that penetrate compacted soils; use better load distribution; use controlled traffic; avoid wheel traffic in open furrows (SARE, 2009).

Soil fertility is important for optimum crop production. The soils in the county require lime and/or fertilizer for optimum production, and some require both. There are areas of the county where soil pH is not a problem due to the native lime content of the soil. The amount of lime and fertilizer needed depends on the natural content of lime and plant nutrients, the needs of a particular crop, and on the level of desired yields. Regular soil sampling for fertility analysis is highly recommended. The test results will provide information for application at agronomic needs that results in economic savings and helps prevent water pollution due to over-application and polluted runoff.

The content of organic matter is an important factor affecting fertility. Organic matter has high nutrient holding and exchange capacity, and high moisture holding capacity. Organic matter contents very widely in the agricultural soils of the county and depend on many variables including soil texture, drainage, acidity, and cropping history. Intensively tilled soils generally have lower organic matter levels than permanent pasture. Well drained soils have lower organic matter content than wetter soils. Coarser textured soils such as sands have lower organic matter content than loams or clays. Acidic soils tend to have higher organic matter content than high lime soils. Building up organic matter levels of cropland is always a good practice.

Nitrogen is released from the organic matter, but much of it is in complex forms that cannot be used by growing plants until it is decomposed by soil microorganisms. Nitrogen fertilizer is needed to supplement the plant available nitrogen from the organic matter in the soil. Management practices that increase the content of organic matter, such as cover crops, sod in rotation, and crop residue management increase the content of nitrogen.

Timeliness of nitrogen fertilization is important to ensure its maximum use by plants. Nitrogen can be lost through leaching in rapidly permeable soils, such as Windsor soils, or by denitrification in wetter and less permeable soils such as Kingsbury. The best results can be obtained by applying small amounts of nitrogen at the proper intervals (e.g. split applications) and by using the pre-sidedress nitrogen test (PSNT)). In split applications, the nitrogen is applied at the time of planting and later as a side-dressing when the crop is growing.

While overall phosphorous content of agricultural soils in Essex County is moderate, the native content is variable. It tends to be very low in coarse-textured soils such as Windsor. Additions of the appropriate amounts of phosphate in the form of commercial fertilizer are essential in areas used by crops. Phosphorous content of feeds brought into the farm and manure applied to cropland should be taken into account in a farm nutrient budget that is based on regular soil and feed analysis.

Most of the soils in the county have low or medium levels of available potassium. The potassium-supplying power of a soil depends upon the clay content. Soils such as Vergennes and Kingsbury are somewhat higher in potassium since they have clayey subsoils. Even soils that have a fairly high content of potassium require additional potassium for the optimum yields of most crops.

Lime is needed on many of the soils in the county to raise the reaction (pH) to a level that will ensure the optimum yields of most crops. Many of the soils in the Champlain Valley overlie or were formed in deposits derived from limestone. Typically, they do not require as much lime as soils in the other parts of the county. Examples of high lime soils in the county are the Vergennes, Kingsbury, Nellis, Amenia, Pyrities, Kalurah, and Howard soils. Additions of lime and fertilizer should be based on the results of soil tests. For assistance in obtaining soil tests and recommendations, farmers and others can contact Cornell Cooperative Extension of Essex County in Westport.

In most areas of Essex County (about 82 percent of the land area), surface stones, boulders, and rock outcrops severely limit the use of the soils as cropland or pasture. They interfere with the use of farming equipment. Some small areas of very stony or very bouldery soils, such as “723C—Becket fine sandy loam, 3 to 15 percent slopes, very bouldery” could be used as permanent pasture. Applying fertilizer, reseeding, and mowing would be difficult in these areas. Removing the larger stones and boulders from some of these soils that have few additional limitations may be feasible. Overcoming limitations in areas of significant rock outcrop such as “831C—Tunbridge-Lyman complex, 3 to 15 percent slopes, very rocky, very bouldery”, is generally not feasible. Most of these areas with significant rock outcrop and/or very bouldery or very stony surfaces are better suited to woodland management.

Yields per Acre

The average yields per acre that can be expected of the principal crops under a high level of management are shown in table 6. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the table.

Yields were generated by Cornell University's Forages.org website utilizing the Forage Species Selection Tool. The Forage Species Selection Tool is made up of several computer programs which access numerous databases to provide forage species suggestions for New York State, taking into consideration both the available soil type and the intended forage use. The website is at: http://forages.org/ (Cornell University, 2008).

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in table 6 are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e, w, s,* or *c,* to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c,* used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1, there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w, s,* or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2e-4 and 3e-6. These units are not given in all soil surveys.

The capability classification of map units in this survey area is given in the section “Detailed Soil Map Units” and in table 6.

Forest Productivity and Management

The county is 90 percent forested according to the US Forest Service (Alerich and others, 1995). Privately owned timberlands comprise about 50 percent of the land area in Essex County, or approximately 576,000 acres. The rest of the forestland is part of the New York State Adirondack Park and is reserved from timber harvest under State law. About 17 percent of the land area of the county is owned and operated by large industrial forestry companies.

Essex County lies wholly within the Adirondack Park. Of the State-owned lands, about 310,000 acres is designated Wilderness Lands, which include the High Peaks, McKenzie Mountain, Sentinel Range, Jay Mountain, Giant Mountain, Dix Mountain, Hoffman Notch, and Pharoah Lake Wilderness Areas. Nearly 150,000 acres is designated Wild Forest Lands; these areas include the Vanderwhacker Mountain, Hammond Pond, and several smaller Wild Forest Areas. About 20,000 acres is designated Primitive; these areas include the Hurricane Mountain and Hudson Gorge Primitive Areas. Of all the State-owned lands in Essex County, about 15 percent is considered unproductive forestland. Unproductive forestland is incapable of producing 20 cubic feet per acre of industrial wood under natural conditions because of adverse site conditions.

Of the US Forest Service recognized forest-type groups in the county, Northern Hardwoods cover the greatest area of private forestland including about 255,000 acres (Alerich and others, 1995). The Eastern White Pine/Red Pine group covers about 127,000 acres. The Red Spruce/Balsam Fir group covers about 72,000 acres. The

Northern Red Oak/Shagbark Hickory group covers about 69,000 acres. The Northern Red Oak/Eastern White Pine group covers about 32,000 acres, and the Big Tooth Aspen/Paper Birch group covers about 20,000 acres.

The Northern Hardwood type consists mainly of American Beech, Sugar Maple, and Yellow Birch, although some sites include Black Cherry, White Ash, Eastern White Pine, and Red Maple. Northern hardwoods are most common on well drained and moderately well drained glacial till soils that dominate side slopes of mountains and hills in the Adirondack Upland. Examples of these tills are the Becket, Tunbridge, Monadnock, Skerry, and Sunapee soils. On wetter footslope areas of these till landscapes, Eastern Hemlock, Red Spuce, and Balsam Fir are mixed with the dominant Beech, Birch, and Maple. Adirondack and Tahawus soils mostly occupy these landforms.

The Easter White Pine/Red Pine type grows most commonly on excessively drained, droughty, sandy glacial outwash soils along river valleys in the Adirondack Upland and Champlain Valley, but can also be found on shallow to gneiss bedrock landforms generally below 2,000 feet in elevation, which are also subject to moisture stress. Associates of White and Red Pine on sandy outwash terraces are Northern Red Oak, Pitch Pine, Eastern White Cedar, Paper Birch, and Sugar Maple. Adams, Colton, Windsor, and Duxbury are examples of soils that occupy these landforms (fig. 28). Associates of White and Red Pine on shallow to bedrock hilltops and steep, moderately deep side slopes are Northern Red Oak, Black Cherry, White Ash, Sugar Maple, and American Beech. Lyman, Tunbridge, Knob Lock, Hollis, and Chatfield are examples of soils found on these landforms.

The Red Spruce/Balsam Fir type grows mainly on poorly drained depressions and bogs in the Adirondack Upland, and on mountaintops above an elevation of 3,000 feet, but can also be found in lowland, hummocky, well drained to very poorly drained, ablation till areas in the Adirondack Upland. In depressions and bogs, Eastern White Cedar, Black Spruce, Tamarack, Eastern Hemlock, and Eastern White Pine can be associates of the dominant Spruce and Fir. Tahawus, Adirondack, Burnt Vly, and Pleasant Lake are examples of soils that occupy these landforms. Harsh weather and thinner soils limit tree growth on mountaintops, and in these stands, Mountain Paper Birch is mixed with the Spruce and Fir. Esther, Wallface, Santanoni, Skylight, Couchsachraga, and Ricker soils occupy these landforms. In the lowland ablation till areas, Yellow Birch, Red Maple, and White Pine are common associates. Monadnock, Sunapee, and Tahawus soils occupy these landforms.

The Northern Red Oak/Shagbark Hickory type grows mainly on somewhat excessively drained, well drained, and moderately well drained, high lime, high fertility soils of till, lacustrine, and outwash origin found in the Champlain Valley. This forest type can be found on landforms in the valley that have not been cleared for agriculture including drumlin-like ridges made up of calcareous loamy tills, calcareous sandy and gravelly outwash deposits, shallow to limestone bedrock terraces and scarps, and clayey lacustrine terraces. Eastern White Pine, White Ash, American Basswood, Sugar Maple, White Oak, and American Elm are associated with Red Oak and Hickory in these areas. Nellis, Amenia, Colonie, Howard, Farmington, Galway, and Vergennes are examples of soils that occupy these landforms.

The Northern Red Oak/Eastern White Pine group grows mainly on well drained and somewhat excessively drained soils of low to medium fertility, and of till or glacial outwash origin. This forest type can be found on acid and medium lime tills associated with bedrock controlled hills, and on acid and medium lime sandy deltaic outwash deposits in the Champlain Valley. American Beech, Sugar Maple, Yellow Birch, White Ash, Red Maple, Paper Birch, and Red Pine are associated with Red Oak and White Pine in these areas. Charlton, Chatfield, Pittsfield, Georgia, Windsor, and Deerfield are examples of soils that occupy these landforms.

Figure 28.—Naturally seeded stand of White and Red Pine on a flat-lying glacial outwash terrace of Colton soils in the town of Lewis. White Pine and Red Pine stands are typically found on these excessively drained sandy and gravelly soils. Note this map unit of Colton has more stones than is typical, and internal drainage is probably very rapid.

The Big Tooth Aspen/Paper Birch type can be found all over the county usually on disturbed or reforested sites. This forest type can occupy a wide range of soil conditions. The sites are usually transitional to some climax forest type and are generally abandoned farmland, or areas that have undergone some disturbance such as forest fire or land clearing at some point in the past.

According to the US Forest Service, most private timberlands in Essex County (about 38 percent) are overstocked. About 27 percent of private timberlands are fully stocked and 28 percent are moderately stocked (Alerich and others, 1995). Only 7 percent of private timberlands are poorly stocked. In 1993, net volume of sawtimber trees on private timberland in Essex County was 3,093 million board feet. The volume increased about 27 percent between 1980 and 1993, mainly the result of maturing

forest stands. Northern hardwoods produced about 1,321 million board feet; oak-pine and oak-hickory about 500 million board feet; other hardwoods, 100 million board feet; spruce-fir, 266 million board feet; and pine, 907 million board feet.

According to the US Forest Service productivity class rating, 68 percent of private timberlands are rated in the poor productivity class, 22 percent in the fair productivity class, only 9 percent in the good productivity class, and 1 percent in the very good productivity class (Alerich and others, 1995). Conversely, according to the Essex County Forestland Soil-Site Feasibility Study (Craul, 1987), 47 percent of the county's private commercial timberland is rated in the very good productivity class, 21 percent in the good productivity class, 13 percent in the fair productivity class, and 19 percent in the poor productivity class. Productivity class of a site is based on its ability to produce a range of volume of timber in cubic feet per acre per year: very good— 120+ cu/ ft./acre/yr; good— 85 - 119 cu/ ft./acre/yr; fair—50 - 84 cu/ ft./acre/yr; poor— 20 - 49 cu/ ft./acre/yr. Estimates of productivity class for Essex County woodlands vary widely. Even more elusive is data that ties productivity class directly to soil type. From what little data exists, some trends seem to appear and are reflected in table 7 (Forestland Productivity). Highest productivity for timber species seems to occur on soils that are also the best agricultural soils in the county. High lime, nutrient rich, relatively warm soils found in the Champlain Valley of till, outwash, or lacustrine origin, seem to have the highest productivity classes for any given timber species. Warmer climates favor certain species such as oaks and hickory. As parent materials of any geologic origin (till, outwash, lacustrine, alluvial) become more acidic, productivity generally decreases. As one moves from east to west in the county, and climatic conditions become colder and growing season becomes shorter, productivity generally decreases. As one climbs in elevation in the mountainous areas of the county and the climate becomes colder, productivity decreases as does the appearance of many commercially important timber species such as Sugar Maple. Deep soils with higher available moisture throughout the growing season are more productive than soils that are shallow to bedrock or have root restricting layers like a dense substratum. Loamy soils that have higher available moisture are generally more productive than sandy or gravelly soils where plants seasonally suffer from moisture stress. Soils that are restricted in rooting depth by seasonal high water tables at or near the surface, are generally less productive. With the soil survey, foresters can assess the relative productivity of timberlands for sustained yield.

During timber harvesting operations, soil erosion, and degradation of soil quality and site productivity are potential risks, but with proper planning and execution, these risks can be minimized. A soil map, a topographic map, and a hand level or clinometer to measure steepness of slope, are a few tools a timber harvester, forester, or landowner can employ to plan their operation to help protect the soil resource. Locations of haul roads, log landings, stream crossings, and major skid trails should all be planned before operations begin. High risk areas of the tract, whether for erosion, soil rutting, stream sedimentation, or construction hazard can be indicated on the base maps and proper measures to minimize the hazards can be addressed.

Type of geologic deposit or parent material, depth to seasonal high water table, depth to bedrock, and slope are the primary soil characteristics that affect how a soil will behave during timber harvesting operations. About 80 percent of the soils in the county formed in material that was deposited by glacial ice, or "till". Most till has a fine sandy loam or sandy loam subsoil, and are reasonably stable material for building roads and landings and running skidding equipment, provided it is relatively dry. Most of this till was deposited at the base of flowing glaciers and has a dense substratum, or hard pan, about 30 inches below the surface. In the spring when the snow is melting, or in peak rainy periods, water will percolate through the friable subsoil and "perch" on top of this hardpan and form a shallow perched water table. On strongly sloping or steep areas, or gently sloping areas where the convex shape of the

landform sheds water off the slope, this water table exists only for brief periods. On footslopes, toeslopes, benches, and saddles that receive additional upslope runoff, seasonal high water tables perched on the hardpan can persist much longer into the growing season. When these soils are saturated from the perched water table, they become soft and unstable and unable to bear a load without deformation. Rubber tire skidders can create huge ruts that can lead to gullying, accelerated erosion, and stream sedimentation. Rutting will also alter local hydrology impeding drainage and increasing wetness, and it will destroy soil structure, reduce soil health, and degrade site quality. Becket, Mundalite, Skerry, Amenia, Adirondack, and Ampersand are examples of till soils with a dense substratum. Some tills were deposited when they were "dumped" out of stagnant ice as it was mass wasting at the end of glaciation as the climate warmed. These tills are generally friable throughout the profile, are free draining and lack the perched water tables, and are generally more stable except during brief periods in the spring and unusual wet periods. Monadnock, Hermon, and Fernlake are examples of these ablation tills. Excessively drained sandy and gravelly outwash soils, such as Colton and Adams, are very stable and present very little problems for timber harvesting operations except on steep slopes. Flood plain soils are mostly fine sandy loams or silt loams and if seasonally saturated are unstable and can be subject to rutting, erosion from flooding, and site degradation problems as discussed above. Ondawa, Podunk, Rumney, Lovewell, Cornish, and Charles are examples of these flood plain soils. Lacustrine or glacial lake deposited soils range from silt to clay in texture and are very unstable when seasonally saturated. Vergennes, Kingsbury, Depeyster, Dunkirk, and Nicholville are examples of lacustrine soils. Timber harvesting operations on any of the different soil parent materials mentioned above should be avoided during periods of seasonal saturation. Soils that are poorly drained and have water tables at or near the surface for most of the year should be harvested only during the winter when soils are frozen and snow cover protects the soil surface. Consult the Water Features table for depth and duration of seasonal high water tables. Steep slopes are also a problem when conducting timber harvesting operations because of the risk of erosion, stream sedimentation, and overall degradation of site quality. Proper planning and location of haul roads, and major and minor skid trails, will help reduce erosion on steep slopes. Haul roads and major skid trails should traverse the slope never exceeding grades of 10 percent even on stable sandy or gravelly soils. Operation of rubber tire skidders on steep slopes should be suspended during wet periods because of increased risk of soil rutting.

Proper closing of roads and trails after a timber harvest will help minimize erosion. Water bars should be installed on any road with slopes greater than 3 percent to divert water off the road. As slope increases, water bars should be placed more closely together. Seeding roads and landings will further stabilize the soil and has the added effect of enhancing habitat for wildlife.

The tables in this section can help forest owners or managers plan the use of soils for wood crops. They show the potential productivity of the soils for wood crops and rate the soils according to the limitations that affect various aspects of forest management.

Forest Productivity

In table 7, the *potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site

index is available in the “National Forestry Manual,” which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forest Management

In table 8 (Hazard of Erosion and Soil Rutting on Forestland), table 9 (Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland), and table 10 (Seedling Mortality and Windthrow Hazard on Forestland), interpretive ratings are given for various aspects of forest management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified forest management practice. *Well suited* indicates that the soil has features that are favorable for the specified practice and has no limitations. Good performance can be expected, and little or no maintenance is needed. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified practice. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. *Poorly suited* indicates that the soil has one or more properties that are unfavorable for the specified practice. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. *Unsuited* indicates that the expected performance of the soil is unacceptable for the specified practice or that extreme measures are needed to overcome the undesirable soil properties.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified forest management practice (1.00) and the point at which the soil feature is not a limitation (0.00).

Rating class terms for seedling mortality and windthrow hazard are expressed as *low, moderate,* and *high*. Where these terms are used, the numerical ratings indicate gradations between the point at which the potential for seedling mortality or windthrow is highest (1.00) and the point at which the potential is lowest (0.00).

The paragraphs that follow indicate the soil properties considered in rating the soils for forest management practices.

For *limitations affecting construction of haul roads*, the ratings are based on slope, flooding, content of sand and clay, rock fragments on the surface, depth to a restrictive layer, depth to a water table, and ponding. The limitations are described as slight, somewhat limited, or very limited. A rating of *slight* indicates that no significant limitations affect construction activities, *somewhat limited* indicates that one or more limitations can cause some difficulty in construction, and *very limited* indicates that one or more limitations can make construction very difficult or very costly.

The ratings of *suitability for log landings* are based on slope, rock fragments on the surface, content of sand and clay, depth to a water table, ponding, flooding, and soil strength. The soils are described as well suited, moderately suited, or poorly suited to use as log landings.

Ratings in the column *suitability for operation of harvesting equipment* are based on slope, rock fragments on the surface, content of sand and clay, soil strength, depth to a water table, and ponding. The soils are described as well suited, moderately suited, or poorly suited to this use.

Ratings in the column *soil rutting hazard* are based on depth to a water table, slope, and soil strength. Ruts form as a result of the operation of forest equipment. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that the soil is subject to little or no rutting, *moderate* indicates that rutting is likely, and *severe* indicates that ruts form readily.

Ratings in the column *hazard of off-road or off-trail erosion* are based on slope and on soil erodibility factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where more than 50 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance. The hazard is described as slight, moderate, severe, or very severe. A rating of *slight* indicates that erosion is unlikely under ordinary climatic conditions; *moderate* indicates that some erosion is likely and that erosion-control measures may be needed; *severe* indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and *very severe* indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Ratings in the column *potential for seedling mortality* are based on flooding, ponding, depth to a water table, and available water capacity. The soils are described as having a slight, moderate, or severe potential for seedling mortality.

Windthrow is the tipping or blowing over of trees during high wind events. Potential for windthrow is greatest where the root zone is shallow due to one or more limiting soil features. Ratings in the column *potential for windthrow* are based on depth to a water table, depth to bedrock, and depth to dense soil material. The soils are described as having a slight, moderate, or severe potential for windthrow.

More detailed information regarding forest productivity and forest management is available in the "National Forestry Manual", which is available in local offices of the Natural Resources Conservation Service or on the Internet.

Recreation

The soils of the survey area are rated in table 11 (Camp Areas, Picnic Areas, and Playgrounds) and table 12 (Paths and Trails, Off-Road Motorcycle Trails, and Golf Fairways) according to limitations that affect their suitability for recreation. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, texture of the surface layer, and surface stones or boulders. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and

the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in table 11 and table 12 can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, surface stones or boulders, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope, stoniness, and surface stones or boulders are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope, stoniness, and surface stones or boulders are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, surface stones or boulders, and texture of the surface layer.

Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, surface stones or boulders, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established, and on maintenance of fairways after construction. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. Excessive amounts of surface stones and/or boulders can damage mowing equipment, and drives up construction costs for their removal. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the estimated data and test data in the "Soil Properties" section.

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, earthfill, and topsoil; plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Table 13 and table 14 show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet (fig. 29). The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Figure 29.—Excavation for construction of a single family dwelling with a basement in an area of Colonie soils in the town of Crown Point. These somewhat excessively drained sandy soils have no restrictions for construction of dwellings with basements.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a

water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Sanitary Facilities

Table 15 shows the degree and kind of soil limitations that affect septic tank absorption fields. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through perforated pipe or similar devices. That part of the soil between depths of 12 and 48 inches is evaluated. In addition, the bottom layer of soil is evaluated for risk of seepage. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Saturated hydraulic conductivity, depth to a water table, ponding, depth to bedrock or dense material, and flooding affect absorption of the effluent. Bedrock, dense material, and stones and boulders interfere with installation. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Construction Materials

Table 16 and table 17 give information about the soils as potential sources of gravel, sand, topsoil, reclamation material, and roadfill. Normal compaction, minor processing, and other standard construction practices are assumed.

Sand and *gravel* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 16, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes, the thickness of material, and the content of rock fragments (fig. 30). If the bottom layer of the soil contains sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *probable* or *improbable* as potential sources of sand and gravel. A rating of *probable* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The

Figure 30.—Gravel pit in Howard soils in the town of Ticonderoga. Note the interbedded layers of gravel and sand in this face. Most of the gravel fragments are made up of limestone.

number 0.00 indicates that the layer is not a likely source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

Hydric soils are associated with wetlands and typically are not considered potential sources of sand or gravel. Soils with a hydric rating of “yes” are assigned a numerical rating of 0.00, regardless of the content of sand or gravel.

The soils are rated *good, fair,* or *poor* as potential sources of topsoil, reclamation material, and roadfill. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of topsoil, reclamation material, or roadfill. The lower the number, the greater the limitation.

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion

and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Water Management

Table 18 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are ascertained by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics. These results are reported in table 19.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering index properties, physical and chemical properties, and pertinent soil and water features.

Engineering Index Properties

Table 19 gives the engineering classifications and the range of index properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2001) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2000).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional

refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest. The AASHTO classification for soils tested, with group index numbers in parentheses, is given in table 19.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of particle-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is generally omitted in the table.

Physical Properties

Table 20 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In table 20, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In table 20, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In table 20, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at $^1/_3$- or $^1/_{10}$-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability (K_{sat}) refers to the ability of a soil to transmit water or air. The term "permeability," as used in soil surveys, indicates saturated hydraulic conductivity (K_{sat}). The estimates in the table indicate the rate of water movement, in inches per hour, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at $^1/_3$- or $^1/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In table 20, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in table 20 as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are as follows:

1. Coarse sands, sands, fine sands, and very fine sands.

2. Loamy coarse sands, loamy sands, loamy fine sands, loamy very fine sands, ash material, and sapric soil material.

3. Coarse sandy loams, sandy loams, fine sandy loams, and very fine sandy loams.

4L. Calcareous loams, silt loams, clay loams, and silty clay loams.

4. Clays, silty clays, noncalcareous clay loams, and silty clay loams that are more than 35 percent clay.

5. Noncalcareous loams and silt loams that are less than 20 percent clay and sandy clay loams, sandy clays, and hemic soil material.

6. Noncalcareous loams and silt loams that are more than 20 percent clay and noncalcareous clay loams that are less than 35 percent clay.

7. Silts, noncalcareous silty clay loams that are less than 35 percent clay, and fibric soil material.

8. Soils that are not subject to wind erosion because of rock fragments on the surface or because of surface wetness.

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Properties

Table 21 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable bases that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable bases plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion. The reaction for organic horizons is given as CaCl2 based pH and the reaction for mineral soil horizons is given as H2O based pH.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced

by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

Water Features

Table 22 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. Table 22 indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. Table 22 indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of

flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Soil Features

Table 23 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based

mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate,* or *high,* is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate,* or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Engineering Index Test Data

Table 24 shows laboratory test data for several pedons sampled at carefully selected sites in the survey area. The pedons are representative of the series described in the section “Soil Series and Their Morphology.” The soil samples were tested by the New York State Department of Transportation, Bureau of Soil Mechanics. The testing methods generally are those of the American Association of State Highway and Transportation Officials (AASHTO) or the American Society for Testing and Materials (ASTM).

The tests and methods are AASHTO classification—M 145 (AASHTO), D 3282 (ASTM); Unified classification—D 2487 (ASTM); Mechanical analysis—T 88 (AASHTO), D 422 (ASTM), D 2217 (ASTM); Liquid limit—T 89 (AASHTO), D 4318 (ASTM); Plasticity index—T 90 (AASHTO), D 4318 (ASTM); Moisture density T 99 (AASHTO), D 698 (ASTM); Specific gravity—T 100 (AASHTO), D 854 (ASTM); California bearing ratio—T 193 (AASHTO), D 1883 (ASTM); and Shrinkage—T 92 (AASHTO), D 427 (ASTM).

Relationship between Parent Material, Landscape Position, and Drainage Class of the Soils

Table 25 shows the relationship between some of the factors that have influenced the development and morphology of the soils in Essex County. The soils are grouped according to the type of landscape positions on which they occur. These landscape positions include glaciated uplands, outwash plains, lacustrine plains and deltas, flood plains, and swamps and bogs. The soils that are on the similar landscapes are grouped according to their depth over bedrock. The soils are also grouped by texture and by morphology of the parent material in which they formed. Finally, the soils are grouped by drainage class. Soils that have the same parent material, soil depth, and landscape position, but are in a different drainage class form a soil catena. Nellis, Amenia, Massena, and Sun soils are examples of soils that form a catena in Essex County. A few components, which are classified above the series level, are less narrowly defined and may cover more than one drainage class such as Udorthents, Udifluvents, and Fluvaquents. The information in Table 26 establishes general relationships among the soils in the county. It supplements the information provided in the section “Formation of the Soils.” Detailed information on the morphology and characteristics of each soil is provided in the section “Taxonomic Units and Their Morphology.”

Engineering Properties of Geologic Deposits

The geologic deposits that occur in Essex County include till, outwash, delta deposits, beach ridge deposits, lacustrine and marine deposits, alluvium, and organic

deposits. The engineering significance of each geologic deposit is influenced to a great extent by its mode of deposition which, in turn, determines the texture of the material and the internal structure of the landform. Other influences are the position of the deposit on the landscape and depth of the water table.

In Essex County, the geologic deposits are divided into the following categories: deep till deposits; shallow or moderately deep to bedrock deposits; stratified, coarse textured deposits; stratified, fine textured deposits; and organic deposits. These deposits are described in the following paragraphs.

Deep till deposits—Deep till deposits are unstratified, highly variable mixtures of all particle sizes ranging from rock fragment to clay. This material was scoured and transported from nearby sources by glacial ice and was deposited as ground moraines, lateral moraines, or recessional moraines. Bedrock is usually greater than five feet deep. Individual rock fragments in the soil generally reflect the local bedrock type.

Soils that formed in deep till deposits include Adirondack, Amenia, Ampersand, Becket, Bombay, Charlton, Esther, Fernlake, Georgia, Hermon, Kalurah, Malone, Massena, Monadnock, Mundalite, Nellis, Pittsfield, Pyrities, Skerry, Sun, Sunapee, Tahawus, and Wilmington series. Cayuga and Churchville soils have a veneer of fine textured lacustrine or marine clay material over deep till.

Most of the deep till deposits have been subjected to the compacting weight of overriding ice (lodgment till). A few of these soils formed in meltout or ablation till deposited at the fringe of the glacier or at the base of stagnating ice. Slopes range from gently sloping to very steep, and the characteristics of these landscapes are such that cut and fill earthwork is needed in most construction. Both types of tills commonly provide stable, relatively incompressible foundations for engineering works; however, ablation tills are generally more friable and have better internal drainage. Fill material from these deposits, when properly compacted, generally provides stable embankments. Steep cut slopes commonly are subject to surface sloughing and erosion. Poorly drained and very poorly drained tills on toeslopes are subject to surface saturation and accumulation of organic deposits (muck or peat).

Very shallow, shallow, or moderately deep to bedrock deposits—These deposits consist of unstratified glacially transported materials deposited as a thin veneer over bedrock, or slightly to highly decomposed plant material accumulating as an organic mat on the bedrock surface due to cool climatic conditions. The soil material commonly is 0.5 foot to 3.0 feet thick, and rock outcrop is common in some areas. The landforms and topography generally are controlled by the bedrock.

Soils that formed in till over metamorphosed igneous bedrock include Chatfield, Couchsachraga, Hogback, Hollis, Lyman, Rawsonville, Santanoni, Skylight, Tunbridge, and Wallface soils. Farmington and Galway soils formed in till over limestone bedrock. Nehasne soils formed in till over marble bedrock. Knob Lock and Ricker soils formed in organic material usually over metamorphosed igneous bedrock.

The main engineering concerns are those that relate to the underlying bedrock which is generally massive and hard, and ground water found in the fracture systems of the bedrock. The overlying material has engineering characteristics similar to the deep tills described above, or the organic deposits described below. It is limited in quantity as a source of fill material because of its thickness over bedrock.

Stratified coarse textured deposits—Materials dominated by gravel and sand sorted by glacial meltwater into layered or stratified deposits are included in this category, as well as coarser-textured material deposited by fluvial action. They occupy such geologic landforms as outwash plains and terraces, kame terraces, beach ridges, deltas, and the coarser portions of alluvial fans and flood plains. The strata within these deposits may be well sorted or poorly sorted, and range in particle size from cobbles to silt. The deposits commonly are loose and porous, and have moderately rapid or rapid permeability.

Soils that formed on gravelly outwash plains, kame terraces, and beach ridges include Colton, Duxbury, and Howard soils. Soils that formed in sandy deltaic and beach deposits are Adams, Champlain, Colonie, Croghan, Deerfield, Factoryville, Gougeville, Mooers, Naumburg, Searsport, Stafford, and Windsor soils. Claverack and Cosad soils are moderately deep sandy beach and deltaic deposits overlying lacustrine or marine clay.

Coarse-textured deposits generally have relatively high strength and low compressibility. Because of their loose and porous nature, most of these deposits are not highly erodible. They are subject to settlement when vibrated.

These deposits of gravel and sand have many uses as construction material. Their uses depend primarily on gradation, soundness, and plasticity. They are sources of sand and gravel for general use, and they may be used as fill material for highway embankments, in parking areas and other developments, and on construction sites where this material is needed to reduce stress on the underlying soils. They may also be used as sub-base for pavements; wearing surfaces for driveways, parking lots, and some roads; material for highway shoulders; and free drainage backfill for structures and pipes. In addition, they may be used to form outside shells of dams for impounding water and as slope protection blankets to drain and help stabilize wet, cut slopes.

Stratified, fine textured deposits—Deposits in this category consist of fine textured sediment transported by glacial meltwater and deposited in quiet proglacial lakes or ancient estuaries, and recent alluvium or flood plain deposits. Clayey marine deposits include Covington, Kingsbury, Livingston, and Vergennes soils. Elmridge soils consist of loamy deltaic or beach material overlying marine clay. Silty clay lacustrine deposits include Collamer, Depeyster, Dunkirk, Hailesboro, Niagara, and Wegatchie soils. Silty and very fine sand lacustrine deposits include Hartland, Nicholville, Roundabout, and Tonawanda soils. Loamy alluvial soils include Occum, Ondawa, Podunk, Pootatuck, Rippowam, and Rumney soils. Silty alluvial soils include Charles, Cornish, Lovewell, and Medomak soils. Recent alluvial deposits are in some cases underlain by coarse-textured sandy and gravelly material.

Due to their fine-texture and high moisture content, the more clayey deposits have low strengths, are compressible, and may settle for long periods of time under a superimposed load. Also, the marine clays may exhibit high shrink-swell behavior, and are susceptible to slope failure such as rotational slump in dissected areas. The soils with a higher fine sand and silt content have low compressibility, but are highly erodible and frost susceptible. Recent alluvial soils are subject to occasional to frequent flooding of brief duration.

Saturation generally increases the instability of these soils.

The fine-textured deposits are difficult to use for engineering works, especially in areas that are flat and poorly drained. Sites for embankments and heavy structures or buildings on all soils formed in these finer-textured sediments must be investigated for strength and settlement characteristics, and for the effects of ground water.

Organic deposits—Organic deposits consist mainly of accumulations of plant remains. In some places they are underlain by mineral soil material within four feet of the surface. These deposits occur in very poorly drained low-lying areas, in bogs or swamps that are covered with water during most of the year, and in freshwater marsh areas.

Soils formed in saturated organic material include Bucksport, Burnt Vly, Catden, Pleasant Lake, Whallonsburg, and Wonsqueak soils.

The soils that formed in organic deposits are entirely unsuitable for foundations for engineering work because they are wet, weak, and highly compressible. Generally, the organic material should be removed to a depth where there is suitable underlying material, and should be replaced with suitable backfill. Placing fill material over organic deposits results in long-term settlement.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1998 and 1999). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 26 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Alfisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udalf (*Ud*, meaning humid, plus *alf*, from Alfisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalf*, the suborder of the Alfisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludalfs.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, active, mesic Typic Hapludalfs.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each series. A pedon, a small three-dimensional area of soil that is typical of the series in

the survey area, is described. The detailed description of each soil horizon follows standards in the “Soil Survey Manual” (Soil Survey Division Staff, 1993). Many of the technical terms used in the descriptions are defined in “Soil Taxonomy” (Soil Survey Staff, 1999) and in “Keys to Soil Taxonomy” (Soil Survey Staff, 1998). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Adams Series

The Adams series consists of very deep, somewhat excessively drained soils on deltas, kame terraces, outwash plains, outwash terraces, and high stream terraces in the Adirondack Upland. Adams soils formed in stratified, water deposited, sandy sediments. Slopes range from 0 to 70 percent.

Adams soils are associated on the landscape with Croghan, Naumburg, Searsport, Colton, Duxbury, Burnt Vly, Monadnock, and Tunbridge soils. Croghan soils are moderately well drained. Naumburg soils are somewhat poorly drained. Searsport soils are very poorly drained. Colton soils are gravelly. Duxbury soils are loamy over gravelly. Burnt Vly soils are mucky and very poorly drained. Monadnock soils are loamy over sandy or gravelly, and are well drained. Tunbridge soils are loamy, well drained, and moderately deep to bedrock.

Typical pedon of Adams sand, in a map unit of Monadnock-Adams-Colton complex, 3 to 15 percent slopes, bouldery, at edge of a small clearing in woodland, in the town of Lewis, 3 miles due west of the junction of Hale Hill Road and US Route 9, at an old clearing called “Seven Kiln”; USGS Ausable Forks 15 minute topographic quadrangle, NAD 1927; lat. 44 degrees 20 minutes 02 seconds N. and long. 73 degrees 36 minutes 20 seconds W.

Oe—0 to 2 inches, very dark gray (5YR 3/1) moderately decomposed (hemic) plant material, 40 percent fiber unrubbed, 15 percent rubbed; weak medium granular structure; very friable; many fine and very fine and few medium roots; less than 1 percent rock fragments; strongly acid; clear smooth boundary.

Oa—2 to 4 inches, black (5YR 2/1) highly decomposed (sapric) plant material, 10 percent fiber unrubbed, 2 percent rubbed; weak medium granular structure; very friable; many fine and very fine and few medium roots; less than 1 percent rock fragments; very strongly acid; clear smooth boundary.

E—4 to 5 inches, reddish gray (5YR 5/2) sand; weak fine granular structure; very friable; many fine and very fine, and few medium roots; less than 1 percent rock fragments; very strongly acid; clear smooth boundary.

Bhs—5 to 8 inches, dark reddish brown (5YR 3/3) loamy sand; weak fine granular structure; very friable; common fine and very fine, and few medium and coarse roots; less than 1 percent rock fragments; strongly acid; clear wavy boundary.

Bs—8 to 14 inches, reddish brown (5YR 4/4) loamy sand; weak medium subangular blocky structure; very friable; common fine and very fine, and few medium and coarse roots; less than 1 percent rock fragments; strongly acid; clear smooth boundary.

BC—14 to 23 inches, yellowish brown (10YR 5/6) sand; single grain; loose; few fine, medium, and coarse roots; less than 1 percent rock fragments; moderately acid; clear smooth boundary.

C—23 to 72 inches, light olive brown (2.5Y 5/4) sand; single grain; loose; few fine and medium roots; less than 1 percent rock fragments; moderately acid.

The thickness of the solum ranges from 41 to 89 centimeters. Depth to bedrock is more than 183 centimeters. Rock fragments, mostly gravel, range from 0 to 10 percent above a depth of 51 centimeters and, from 0 to 20 percent below 51 centimeters. Some pedons have contrasting very gravelly deposits below a depth of 100 centimeters.

The sand fraction is dominantly medium and fine. Adams soils are dry for less than 20 consecutive days following the summer solstice and moist within 91 centimeters of the soil surface during the month of August in normal years.

The 0 horizon, where present, is neutral or has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 0 to 3.

Some pedons have an A or Ap horizon that has hue of 5YR to 10YR, value of 2 to 5, and chroma of 1 to 4. Texture is loamy fine sand, loamy sand, fine sand, or sand. Structure is weak or moderate fine or medium granular or it is single-grain. Consistence is friable or very friable. Unless limed, reaction is extremely acid to moderately acid.

The E horizon, where present, has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 to 3. Texture is loamy fine sand, loamy sand, fine sand, or sand. Structure is granular or weak subangular blocky in some pedons, but most pedons are single-grain. Consistence is friable to loose. Reaction is extremely acid to moderately acid.

The Bhs or Bh horizon, where present, has hue of 2.5YR to 7.5YR, value of 2 or 3, and chroma of 1 to 4. Texture is loamy fine sand, loamy sand, fine sand, or sand. Structure is weak or moderate fine or medium granular or weak subangular blocky, or the horizon is single-grained or massive. Consistence is very friable or friable. Massive, cemented bodies, 1 to 20 centimeters across, range from 0 to 30 percent of the exposed surface area of the horizon. Reaction is very strongly acid to moderately acid.

The Bs horizon has hue of 5YR to 10YR, value of 3 to 6, and chroma of 3 to 8. Texture is loamy fine sand, loamy sand, fine sand, or sand in the fine-earth fraction. Structure is weak granular or subangular blocky, or the horizon is single-grain or massive. Consistence is very friable or loose. Massive, cemented bodies range from 0 to 30 percent of the exposed surface area of the Bs horizon. Reaction is very strongly acid to moderately acid.

The BC horizon has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 2 to 6. The texture is fine sand to coarse sand in the fine-earth fraction. Some pedons have texture of loamy sand. Consistence is very friable or loose. Cemented bodies range up to 20 percent of the exposed surface area in some pedons. Reaction is very strongly acid to moderately acid.

The C horizon has hue of 5YR to 5Y, value of 4 to 7, and chroma of 2 to 6. Texture is fine sand to coarse sand in the fine-earth fraction. Reaction is very strongly acid to slightly acid.

Adirondack Series

The Adirondack series consists of very deep, somewhat poorly drained soils in shallow depressions on footslopes, and along drainage ways on till plains in uplands and mountainous areas. Adirondack soils formed in loamy sediments underlain by compact, sandy or loamy, very firm lodgment till. Slopes range from 0 to 15 percent.

Adirondack soils are commonly associated with the well drained Becket, Monadnock, and the moderately well drained Skerry and Sunapee soils that are on higher topographic positions. Also associated are the very poorly drained Tahawus soils that have more friable substratums.

Typical pedon of Adirondack fine sandy loam, in a map unit of Adirondack-Sabattis-Tughill complex, 0 to 8 percent slopes, very bouldery, in Hamilton County, New York, town of Morehouse, 100 feet south of a point on NYS Rt 8 where the trail starts to the Fort Noble fire tower; USGS Ohio, NY 15 minute topographic quadrangle; NAD 1927; lat. 43 degrees 23 minutes 36 seconds N. and long. 74 degrees 49 minutes 43 seconds W.

Oe—0 to 2 inches; black (5YR 2.5/1) moderately decomposed (hemic) plant material; (unrubbed 75 percent fibers, rubbed 35 percent fibers;) weak fine and medium

granular structure; very friable; many fine and few medium and coarse roots; extremely acid; clear smooth boundary.

Oa—2 to 4 inches; black (5YR 2.5/1) highly decomposed (sapric) plant material; (unrubbed 25 percent fibers; rubbed 3 percent fibers); moderate fine and medium granular structure; very friable; many fine, few medium and coarse roots; extremely acid; clear smooth boundary.

E—4 to 6 inches; light brownish gray (10YR 6/2 fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine, few medium and coarse roots; 5 percent rock fragments, 1 percent greater than 3 inches; few medium prominent dark reddish brown (5YR 3/4) areas of iron accumulation; very strongly acid; abrupt wavy boundary.

Bh—6 to 8 inches; dark reddish brown (5YR 3/2) fine sandy loam; moderate fine and medium subangular blocky structure; friable with 25 percent firm masses; common fine roots; 5 percent rock fragments, 1 percent greater than 3 inches; common medium and coarse distinct dark reddish brown (5YR 3/4) areas of iron accumulation; very strongly acid; abrupt wavy boundary.

Bhs—8 to 9 inches; dark reddish brown (5YR 3/3) fine sandy loam; weak thin and medium platy structure; friable with 20 percent firm masses; few fine roots; 5 percent rock fragments, 1 percent greater than 3 inches; common medium distinct reddish brown (5YR 4/4) areas of iron accumulation; common medium faint, dark reddish brown (5YR 2/2) iron nodules (ortstein like); very strongly acid; clear wavy boundary.

Bs—9 to 18 inches; brown (7.5YR 5/4-4/4) fine sandy loam; weak thin and medium platy structure parting to weak very fine subangular blocky; friable, with 20 percent firm masses; few fine roots in the upper part; 5 percent rock fragments; 1 percent greater than 3 inches; many medium and coarse distinct yellowish red (5YR 4/6) and common fine faint light brown (7.5YR 6/4) areas of iron accumulation; strongly acid; clear wavy boundary.

BC—18 to 26 inches; yellowish brown (10YR 5/4) to dark yellowish brown (10YR 4/4) sandy loam; weak medium and coarse subangular blocky structure; friable; 10 percent rock fragments, 1 percent greater than 3 inches; many medium and coarse prominent yellowish red (5YR 4/6), common fine and medium faint yellowish brown (10YR 5/6) areas of iron accumulation, few medium faint pale brown (10YR 6/3) areas of iron depletion; strongly acid; gradual wavy boundary.

Cd1—26 to 34 inches; brown (10YR 4/3) gravelly loamy sand; massive with weak medium plate-like divisions; firm; 15 percent rock fragments, 1 percent greater than 3 inches; strongly acid. gradual wavy boundary.

Cd2—34 to 43 inches; grayish brown to brown (10YR 5/2-5/3) gravelly loamy sand; massive; firm in place; 25 percent rock fragments; 3 percent greater than 3 inches; few fine and medium distinct yellowish brown (10YR 5/6) mottles; strongly acid; gradual wavy boundary.

Cd3—43 to 72 inches; grayish brown (2.5Y 5/2) gravelly loamy sand; massive; firm in place, friable when removed; 30 percent rock fragments, 5 percent greater than 3 inches; strongly acid.

The mineral solum thickness ranges from 20 to 38 inches. Depth to bedrock is greater than 60 inches. Redoximorphic features consisting of iron depletions or concentrations occur in the spodic horizon within 20 inches of the mineral soil surface. Rock fragments, mainly stones, cobbles, and gravel, range from 5 to 35 percent, by volume, throughout the mineral soil.

The O horizon ranges from slightly decomposed to highly decomposed plant material. Reaction is extremely acid or very strongly acid.

Some pedons have an A horizon that is neutral or has hue of 5YR to 10YR, value of 1 to 3, and chroma of 0 to 3. Some pedons have an Ap horizon that has hue of 5YR

to 10YR, value of 2 to 4, and chroma of 1 to 3. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam or silt loam in the fine-earth fraction. Reaction ranges from extremely acid to strongly acid. Thickness of the A or Ap horizon is 0 to 8 inches.

The E horizon has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 or 2. Texture is loamy fine sand, sandy loam, fine sandy loam, loam, or silt loam in the fine-earth fraction. Reaction ranges from extremely acid to strongly acid.

The Bh horizon has hue of 5YR or 7.5YR, value of 2 or 3, and chroma of 1 or 2. Texture is sandy loam, fine sandy loam, loam, or silt loam in the fine-earth fraction. Consistence is friable or very friable, but up to 25 percent firm areas may be present. Reaction ranges from extremely acid to strongly acid.

The Bhs horizon has hue of 5YR or 7.5YR, with value and chroma of 3. Texture, consistence and reaction are similar to the Bh horizon.

The Bs horizon has hue of 5YR or 7.5YR, value of 3 to 5, and chroma of 3 or 4. Texture is sandy loam, fine sandy loam, loam or silt loam in the fine-earth fraction. Consistence is friable or very friable. Reaction ranges from extremely acid to strongly acid.

The BC horizon has hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 1 to 4. Texture is loamy fine sand to silt loam in the fine earth fraction. Consistence is friable or firm. Reaction is very strongly acid to moderately acid.

The Cd horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 1 to 3. Texture is loamy sand, loamy fine sand, coarse sandy loam, sandy loam, fine sandy loam, or loam. It is massive or has plate-like divisions. Consistence is firm or very firm. Vertical desiccation cracks 20 inches or more apart are in some pedons. Reaction is strongly acid or moderately acid. Some pedons have a thin C horizon above the Cd horizon.

Amenia Series

The Amenia series consists of very deep, moderately well drained soils on summits, shoulders, and backslopes of glaciated ridges and on till plains in the Champlain Valley. Amenia soils formed in loamy sediments underlain by firm, loamy, calcareous lodgment till. Slopes range from 2 to 15 percent (fig. 31).

Amenia soils are associated on the landscape with Nellis, Massena, Sun, Bombay, Kingsbury, Churchville, and Howard soils. Nellis soils are well drained. Massena soils are somewhat poorly drained. Sun soils are poorly drained. Bombay soils have higher clay content in the subsoil. Kingsbury soils are clayey and are somewhat poorly drained. Churchville soils are clayey over loamy and are somewhat poorly drained. Howard soils are gravelly and are well drained to excessively drained.

Typical pedon of Amenia fine sandy loam, 2 to 8 percent slopes, in the town of Essex, 500 feet south of junction of Clark Road and Cross Road, 100 feet east of road, in a hay field; USGS Willsboro 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 15 minutes 47 seconds N., and long. 73 degrees 23 minutes 05 seconds W.

Ap—0 to 9 inches, dark brown (10YR 3/3) fine sandy loam; pale brown (10YR 6/3) dry; weak fine and medium granular structure; very friable; many fine roots; 4 percent rock fragments; neutral; clear smooth boundary.

Bw—9 to 14 inches, 60 percent pale brown (10YR 6/3) and 40 percent yellowish brown (7.5YR 4/6) fine sandy loam; moderate fine and medium subangular blocky structure; friable; common fine and few medium roots; 4 percent rock fragments; common fine and medium distinct strong brown (7.5YR 5/6) and (7.5YR 4/6) soft masses of iron accumulation; neutral; clear wavy boundary.

BC—14 to 21 inches, variegated yellowish brown (10YR 5/4) and dark brown (10YR 4/3) fine sandy loam; weak coarse platy structure; friable; few fine roots; common fine and medium tubular and many fine vesicular pores; 4 percent rock fragments, 1 percent greater than 3 inches; few medium dark brown (7.5YR 3/4) ironstone

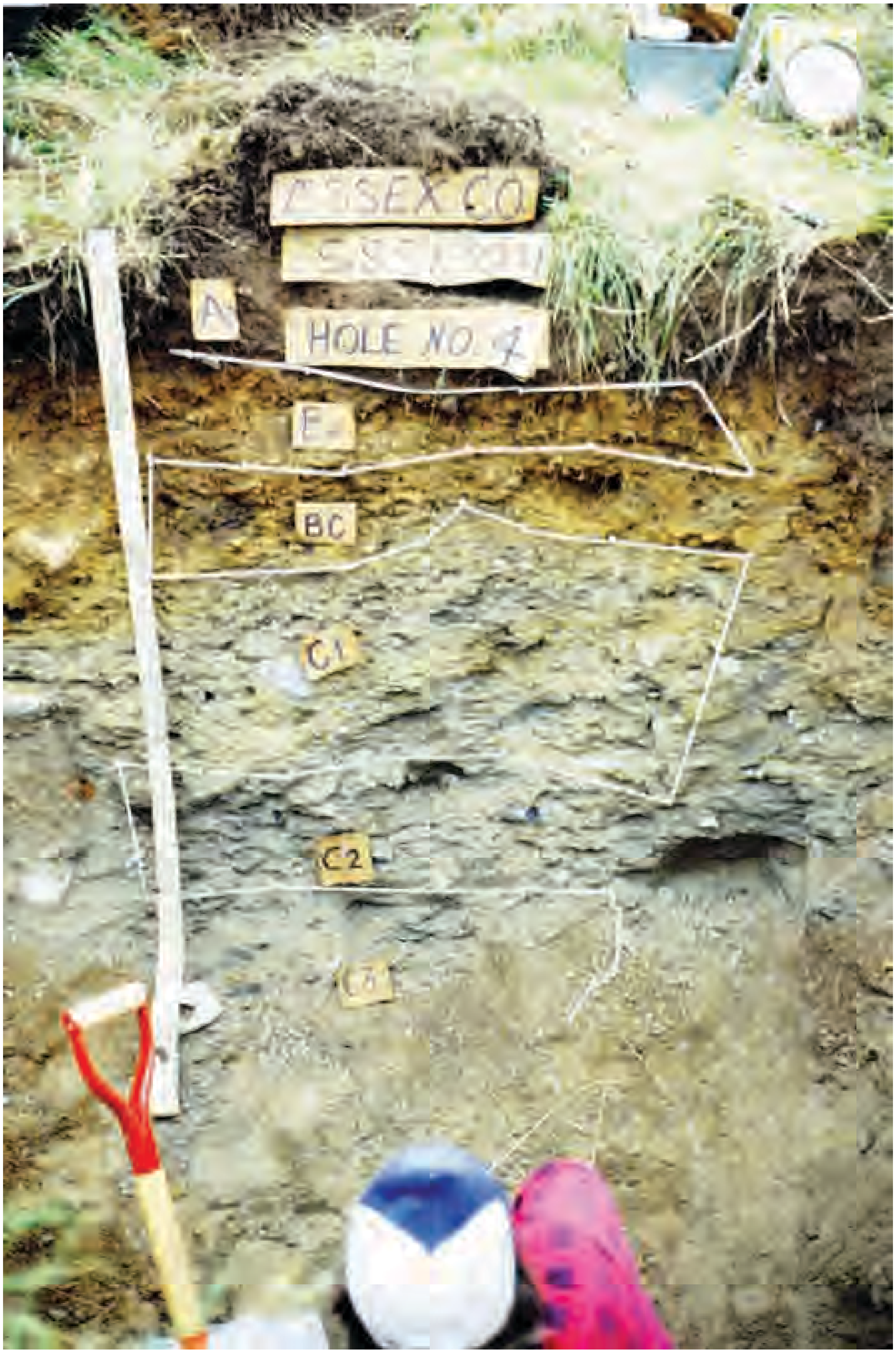


Figure 31.—Soil profile of the Amenia series from a backhoe test pit, in the town of Essex, in a hay field. The gray substratum (C horizons) is a very firm, dense, calcareous till derived mostly from limestone.

nodules; common fine and medium distinct light brownish gray (10YR 6/2) iron depletions in lower part; neutral; clear wavy boundary.

Cd1—21 to 36 inches, 70 percent grayish brown (2.5Y 5/2) and 30 percent yellowish brown (10YR 5/4) fine sandy loam; massive with strong thick and medium plate-like divisions; firm; few fine tubular and common fine vesicular pores; 11 percent rock fragments with 3 percent greater than 3 inches; 10 percent of ped surfaces have coatings of very pale brown (10YR 8/2) calcium carbonate accumulations; few fine faint light brownish gray (10YR 6/2) iron depletions; moderately alkaline, alkaline, violently effervescent; clear wavy boundary.

Cd2—36 to 48 inches, grayish brown (2.5Y 5/2) fine sandy loam; massive with weak thick and medium plate-like divisions; firm; few fine vesicular and tubular pores; 9 percent rock fragments with 3 percent greater than 3 inches; strongly alkaline, alkaline, violently effervescent; gradual wavy boundary.

Cd3—48 to 72 inches, grayish brown (2.5Y 5/2) fine sandy loam; massive; firm; 9 percent rock fragments with 3 percent greater than 3 inches; strongly alkaline, violently effervescent.

The thickness of the solum ranges from 18 to 36 inches and depth to carbonates range from 10 to 34 inches. The carbonates are nearly all of calcium. Depth to bedrock is more than 60 inches. Rock fragments range from 4 to 35 percent by volume throughout the soil.

Undisturbed pedons have A horizons 4 to 7 inches thick. The A horizon has hue of 10YR, value of 2 or 3, and chroma of 2.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 or 4 and chroma of 2 or 3. Texture is silt loam, loam, or fine sandy loam in the fine earth fraction. Structure is weak or moderate granular and consistence is friable or very friable. Reaction ranges from moderately acid to slightly alkaline.

Some pedons have an A/B or AB horizon up to 6 inches thick.

The B horizon has hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 6. Chroma of 2 is at depths greater than 20 inches. Texture is fine sandy loam, loam, or silt loam in the fine earth fraction. Structure is weak or moderate, fine to coarse subangular blocky or granular, and consistence is very friable to firm. Reaction ranges from moderately acid to slightly alkaline.

The BC horizon has moderate to weak subangular blocky or platy structure.

The C or Cd horizon has hue of 7.5YR to 5Y, value of 4 or 5, and chroma of 1 to 4. Texture is silt loam, loam, very fine sandy loam or fine sandy loam in the fine earth fraction. The horizon is massive and may part to plate-like divisions or has platy structure. Consistence is firm or very firm. Some pedons have a friable C horizon above the Cd. Reaction is slightly alkaline or strongly alkaline.

Ampersand Series

The Ampersand series consists of very deep, somewhat poorly drained soils in depressions on toeslopes and footslopes of glaciated mountains in the Adirondack Upland. Ampersand soils formed in loamy sediments underlain by compact, loamy, very firm lodgment till. Slopes range from 0 to 35 percent (fig. 32).

Ampersand soils are associated on the landscape with Wilmington, Mundalite, Rawsonville, Hogback, and Knob Lock soils. Wilmington soils are poorly drained. Mundalite soils are well drained. Rawsonville soils are moderately deep to meta-igneous bedrock and are well drained. Hogback soils are shallow to meta-igneous bedrock and are well drained. Knob Lock soils are organic, shallow or very shallow to meta-igneous bedrock, and are well to excessively drained.

Typical pedon of Ampersand fine sandy loam, in a map unit of Ampersand-Wilmington complex, 0 to 15 percent slopes, very bouldery, in a wooded area, in the town of Lewis, 200 feet south of a point on Wells Hill Road that is 350 feet east of the upper crossing of Wells Hill Road and Spruce Mill Brook; USGS Ausable Forks 15

Figure 32.—Soil profile of the Ampersand series from a hand dug pit, in the town of Lewis, in a mixed conifer and hardwood forest. The thick, mottled, dark brown subsoil is rich in translocated organic matter and oxides of iron and aluminum.

minute topographic quadrangle; NAD 1983; lat. 44 degrees 16 minutes 53.2 seconds N., long. 73 degrees 39 minutes 42.5 seconds W.

Oe—0 to 1 inch; dark reddish brown (5YR 2/2) moderately decomposed (hemic) plant material; 70 percent fiber unrubbed, 40 percent rubbed; weak fine and medium granular structure; very friable; many fine and very fine, common medium roots; very strongly acid; clear smooth boundary.

Oa1—1 to 3 inches, black (5YR 2/1) highly decomposed (sapric) plant material, 20 percent fiber unrubbed, 5 percent rubbed; weak fine granular structure; very friable; many fine and very fine, and common medium roots; very strongly acid; clear wavy boundary.

Oa2—3 to 4 inches, black (10YR 2/1) highly decomposed (sapric) plant material, 40 percent fine and very fine sand; 10 percent fiber unrubbed, 2 percent rubbed; weak fine granular structure; very friable; many fine and very fine, and common medium roots; strongly acid; abrupt wavy boundary.

E—4 to 5 inches; dark grayish brown (2.5YR 4/2) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and few medium roots; few fine tubular pores; 5 percent rock fragments; very strongly acid; clear broken boundary.

Bhs1—5 to 13 inches; dark reddish brown (5YR 3/3) fine sandy loam; weak medium and coarse subangular blocky structure; friable; common fine and few medium roots; few fine tubular pores; 5 percent rock fragments; strongly acid; gradual wavy boundary.

Bhs2—13 to 19 inches; dark reddish brown (5YR 3/3) fine sandy loam; weak medium and coarse subangular blocky structure; friable; common fine and few medium roots; few fine tubular pores; 5 percent rock fragments; few fine and medium faint dusky red (2.5YR 3/2) soft masses of iron accumulation, and common fine and

medium prominent gray (10YR 5/1) depletions; strongly acid; clear wavy boundary. (Combined thickness of the Bhs horizons is 4 to 16 inches thick)

BC—19 to 24 inches; olive brown (2.5Y 4/3) sandy loam; weak medium and coarse subangular blocky structure; firm; few fine roots; few fine tubular pores; 8 percent rock fragments; few medium and coarse prominent strong brown (7.5YR 5/8), and many fine and medium prominent dark reddish brown (5YR 3/3) soft masses of iron accumulation, and common fine and medium distinct grayish brown (10YR 5/2) depletions; strongly acid; clear wavy boundary. (0 to 16 inches thick)

Cd1—24 to 32 inches; brown (10YR 4/3) gravelly loamy sand; massive with thick plate-like divisions; very firm and brittle; common fine tubular pores; 20 percent rock fragments; common medium distinct strong brown (7.5YR 4/6) soft masses of iron accumulation and few fine distinct grayish brown (10YR /2) iron depletions; strongly acid; clear wavy boundary.

Cd2—32 to 72 inches; interbedded 40 percent grayish brown (2.5Y 5/2) inherited, gravelly sandy loam and olive brown (2.5Y 4/3) gravelly loamy sand; massive with thick plate-like divisions; very firm and brittle; few fine tubular pores in loamy part, and common fine in sandy part; 20 percent rock fragments; common fine and medium prominent strong brown (7.5YR 5/6) soft masses of iron accumulation in loamy part; moderately acid.

The thickness of the solum ranges from 20 to 40 inches. Depth to bedrock is greater than 60 inches. Redoximorphic features consisting of Fe depletions or concentrations occur in the Spodic horizon within 20 inches of the mineral soil surface. At least 4 inches of the Bhs and/or the Bh horizons contain 6 percent or more organic carbon by weight. Rock fragments, mainly stones, cobbles, and gravel, range from 5 to 35 percent, by volume, throughout the soil.

The O horizon ranges from fibric material to sapric material. The horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 4, and chroma of 0 to 6. Reaction ranges from extremely acid to strongly acid.

Some pedons have an A horizon that is neutral or has hue of 5YR to 10YR, value of 2 or 3, and chroma of 0 to 2. Texture is fine sandy loam, sandy loam, very fine sandy loam, or loam in the fine-earth fraction. Reaction ranges from extremely acid to strongly acid.

The E horizon has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, coarse sandy loam, or loamy fine sand in the fine-earth fraction. Reaction ranges from extremely acid to strongly acid.

The Bh horizon, where present, is neutral or has hue of 2.5YR to 7.5YR, value of 2 or 3, and chroma of 0 to 2. Texture is fine sandy loam, sandy loam, coarse sandy loam or loam, in the fine-earth fraction. Consistence is friable or very friable, but up to 25 percent firm areas (ortstein) may be present. Reaction ranges from extremely acid to strongly acid.

The Bhs horizon has hue of 2.5YR to 7.5YR, and value of 3 or less, and chroma of 4 or less. Texture, consistence, and reaction are similar to the Bh horizon.

The Bs horizon has hue of 2.5YR to 7.5YR, value of 3 to 5, and chroma of 3 or 4. Texture is fine sandy loam, sandy loam, or coarse sandy loam in the fine-earth fraction. Some pedons may have thin sub-horizons of loamy fine sand or loamy sand. Consistence is friable or very friable. Reaction ranges from extremely acid to strongly acid.

A BC horizon is present in some pedons. The horizon has hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 1 to 4. Texture is fine sandy loam, sandy loam, coarse sandy loam, loamy fine sand, or loamy sand in the fine-earth fraction. Consistence is friable or firm. Reaction is very strongly acid to moderately acid.

The Cdg or Cd horizon has hue of 7.5YR to 2.5Y, value of 4 or 5, and chroma of 1 to 4. Texture is loamy sand, loamy fine sand, coarse sandy loam, sandy loam, or fine sandy loam. It is massive with or without plate-like divisions, and consistence is firm or very firm. Reaction is very strongly acid through moderately acid.

Andic Cryaquods

Andic Cryaquods soils consist of very deep, somewhat poorly drained soils in depressions on toeslopes and footslopes of glaciated mountains in the Adirondack High Peaks Area. These soils formed in loamy materials underlain by compact, loamy, very firm lodgment till. Slopes range from 3 to 35 percent.

Andic Cryaquods soils are associated on the landscape with Couchsachraga, Esther, Ricker, Santanoni, Skylight, and Wallface soils. Couchsachraga soils are sandy, 4 to 10 inches deep to meta-igneous bedrock, and are somewhat excessively drained and excessively drained. Esther soils are moderately well drained. Santanoni soils are sandy and gravelly, 20 to 40 inches deep to meta-igneous bedrock and are somewhat excessively drained to excessively drained. Wallface soils are 20 to 40 inches deep to meta-igneous bedrock and are well drained. Skylight soils are sandy, 10 to 20 inches deep to meta-igneous bedrock, and are somewhat excessively drained to excessively drained. Ricker soils are organic, 1 to 20 inches deep to meta-igneous bedrock, and are well drained to excessively drained.

Typical pedon of Andic Cryaquods, in a map unit of Andic Cryaquods-Esther complex, 3 to 15 percent slopes, very bouldery, in a wooded area, in the town of Keene, along Skylight Brook, 2 miles upstream from its junction with the South Branch Opalescent River; USGS Mount Marcy 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 04 minutes 51 seconds N. and long. 73 degrees 56 minutes 42 seconds W.

Oe—0 to 7 inches, reddish black (10R 2.5/1) moderately decomposed (hemic) plant material; weak fine granular structure; very friable; many fine and common medium and few coarse roots; extremely acid; gradual wavy boundary.

Oa—7 to 11 inches, reddish black (10R 2.5/1) highly decomposed (sapric) plant material; weak fine granular structure; very friable; many fine and common medium roots; extremely acid; clear wavy boundary.

Bhs1—11 to 13 inches; 70 percent dusky red (2.5YR 3/2) and 30 percent dark reddish brown (2.5YR 3/4) sandy loam; weak medium subangular blocky structure; friable; common fine and few medium roots; 12 percent gravels; very strongly acid; clear wavy boundary.

Bhs2—13 to 24 inches; brown (7.5YR 4/4) sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; 12 percent gravels; few fine faint strong brown (7.5YR 4/6) redox concentrations as diffuse iron masses in lower part; very strongly acid; gradual wavy boundary.

Bhs3—24 to 36 inches; dark reddish brown (5YR 3/2) sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; 10 percent gravels and 2 percent stones; few fine faint dark reddish brown (5YR 3/4) redox concentrations, common medium distinct reddish gray (5YR 5/2) redox depletions, and few fine distinct black (5YR 2.5/1) Mn stains; strongly acid; clear wavy boundary.

Cd—36 to 42 inches; olive brown (2.5Y 4/4) gravelly loamy sand; massive; firm, brittle; 25 percent gravels and 5 percent stones; strongly acid.

The thickness of the solum ranges from 20 to 39 inches from the mineral surface. Rock fragment content ranges from 5 to 35 percent in the solum, and 5 to 50 percent in substratum. Stones and boulders cover from .01 to 15 percent of the surface. Reaction ranges from ultra acid to very strongly acid in the surface and subsurface horizons, and from extremely acid to strongly acid in the subsoil and substratum.

The O horizons have hue of 10R to 10YR or are neutral, with value and chroma of 3 or less. It is slightly decomposed (fibric), moderately decomposed (hemic), or highly decomposed (sapric) plant material. It has weak or moderate, fine or medium granular or subangular blocky structure. Consistence is very friable or friable.

The A horizon (where present), has hue of 7.5YR to 2.5Y, value of 2 or 3, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, or coarse sandy loam in the fine-earth fraction. This horizon has weak or moderate, fine or medium granular structure. Consistence is very friable or friable.

The E horizon (where present), has hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, coarse sandy loam, loamy fine sand or loamy sand in the fine-earth fraction. This horizon has weak fine or medium granular or subangular blocky structure. Consistence is very friable or friable.

The Bhs horizons and Bh horizons (where present), have hue of 10R to 7.5YR, with a value and chroma of 3 or less. The Bhs and Bh horizons are fine sandy loam, sandy loam, coarse sandy loam, and can range to loam in some pedons. Ortstein is present in less than 50 percent of some horizons. These horizons have weak or moderate, fine, medium, or coarse granular or subangular blocky structure, and some pedons have weak platy structure. Consistence is very friable to firm.

The Bs horizon has hue of 5YR or 7.5YR, value of 3 to 5, and chroma of 3 or 4. Texture is fine sandy loam, sandy loam or coarse sandy loam in the fine-earth fraction. This horizon has weak or moderate, fine, medium, or coarse subangular blocky structure, and some pedons have weak platy structure. Consistence is very friable to firm.

The BCd or BC horizon (where present), has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 3 to 6. Texture is fine sandy loam, sandy loam or coarse sandy loam in the fine-earth fraction. This horizon is massive with or without medium or thick plate like divisions, or it has weak or moderate, medium or coarse subangular blocky structure. Consistence is friable to very firm and brittle.

The Cd horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 3 to 6. Texture is loamy sand, sand, loamy coarse sand, coarse sand, or coarse sandy loam in the fine earth fraction. It is massive with medium or thick plate like divisions. Consistence is firm or very firm and brittle.

Becket Series

The Becket series consists of very deep, well drained soils on summits, shoulders, backslopes, and footslopes of glaciated mountains, hills, ridges, and till plains in the Adirondack Upland. Becket soils formed in loamy sediments underlain by compact, sandy or loamy, very firm lodgment till. Slopes range from 3 to 60 percent (fig. 33).

Becket soils are associated on the landscape with Skerry, Adirondack, Tunbridge, Lyman, Tahawus, and Monadnock soils. Skerry soils are moderately well drained. Adirondack soils are somewhat poorly drained. Tunbridge soils are moderately deep to meta-igneous bedrock. Lyman soils are shallow to meta-igneous bedrock. Tahawus soils are very poorly drained and are sandy. Monadnock soils are loamy over sandy or gravelly.

Typical pedon of Becket fine sandy loam, 8 to 15 percent slopes, in a wooded area, in the town of North Hudson, 1.5 miles north of the junction of Elk Lake Road and Blue Ridge Road, in a road cut along the east side of road; USGS Schroon Lake 15 minute topographic quadrangle; NAD 1927; lat. 43 degrees 58 minutes 26 seconds N. and long. 73 degrees 49 minutes 56 seconds W.

Oe—0 to 2 inches, very dark gray (5YR 3/1) moderately decomposed (hemic) plant material; weak fine and medium granular structure; friable; many fine and very fine roots; very strongly acid; abrupt smooth boundary.

E—2 to 3 inches, gray (5YR 6/1) fine sandy loam; weak fine and medium granular structure; friable; many fine and very fine, few medium roots; 10 percent rock fragments; very strongly acid; abrupt smooth boundary.

Bhs—3 to 5 inches, dark reddish brown (5YR 3/2) fine sandy loam; common medium distinct dark reddish brown (2.5YR 2.5/4) ortstein nodules; weak fine and medium

Figure 33.—Soil profile of the Becket series from a road cut, in the town of North Hudson, in a northern hardwoods forest. The gray substratum is a very firm, dense, acidic till derived mostly from anorthositic gneiss. Iron and aluminum oxides with some organic matter form the reddish brown "spodic horizon" subsoil.

subangular blocky structure; friable; many fine and very fine, few medium roots; 10 percent rock fragments; very strongly acid; clear smooth boundary.

Bs—5 to 9 inches, reddish brown (5YR 4/4) sandy loam; weak fine and medium subangular blocky structure; friable; common fine and very fine, few medium roots; 10 percent rock fragments; very strongly acid; clear wavy boundary.

BC1—9 to 18 inches, dark yellowish brown (10YR 4/6) sandy loam; weak medium subangular blocky structure; friable; common fine and very fine, few medium roots; 14 percent rock fragments; very strongly acid; clear smooth boundary.

BC2—18 to 33 inches, dark yellowish brown (10YR 4/4) sandy loam; weak medium subangular blocky structure; friable; common fine and very fine, few medium roots; 14 percent rock fragments; strongly acid; abrupt wavy boundary.

Cd1—33 to 47 inches, light olive brown (2.5Y 5/4) gravelly loamy sand; massive with medium plate like divisions; very firm, brittle; 30 percent rock fragments; many medium and coarse distinct dark reddish brown (2.5YR 2.5/4) soft masses of iron accumulation on plate surfaces; strongly acid; clear smooth boundary.

Cd2—47 to 72 inches, light gray (10YR 7/2) gravelly loamy sand; massive with medium plate like divisions; very firm, brittle; 30 percent rock fragments; strongly acid.

Mineral solum thickness ranges from 20 to 36 inches. Reaction ranges from extremely acid to slightly acid in the solum, and from very strongly acid to neutral in the substratum. Rock fragment are dominantly gravel and range from 5 to 30 percent in the solum and from 5 to 40 percent in the substratum. Rock fragments constitute less than 35 percent of the particle-size control section. Ortstein ranges from 0 to 20 percent of the spodic horizon.

The O horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 4, and chroma of 0 to 4. It is slightly, moderately or highly decomposed plant material.

Some pedons have an A horizon that has hue of 5YR to 10YR, value of 2 to 4, and chroma of 1 to 3. It is up to 6 inches thick.

Disturbed areas have an Ap horizon with hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4.

The A and Ap horizons are dominantly fine sandy loam, but include loam and sandy loam in the fine-earth fraction. Structure is granular.

The E horizon has hue of 5YR to 2.5Y, value of 4 to 7, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, or loamy sand in the fine-earth fraction. Structure is granular or subangular blocky or the horizon is massive.

The Bhs horizon has hue of 2.5YR to 7.5YR, value of 2 to 3, and chroma of 1 to 3. Texture is dominantly fine sandy loam, but includes loam and sandy loam in the fine-earth fraction. Structure is granular or subangular blocky or the horizon is massive.

Some pedons have a Bh horizon has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 1 to 4. Texture range is the same as the Bhs horizon.

The Bs horizon has hue of 2.5YR to 10YR, value of 3 to 8 and chroma of 2 to 8. Texture is fine sandy loam or sandy loam in the fine-earth fraction. Structure is granular or subangular blocky or the horizon is massive.

The BC horizon has hue of 10YR to 5Y, value and chroma of 3 to 6. Texture is fine sandy loam, sandy loam, loamy fine sand, or loamy sand in the fine-earth fraction. Structure is granular, platy, or subangular blocky or the horizon is massive.

The Cd horizon has hue of 10YR to 5Y, value of 4 to 7, and chroma of 2 to 6. It is comprised of loamy layers and sandy pockets and lenses with horizontal orientation, with a composite texture of loamy sand, loamy fine sand, sandy loam, fine sandy loam, or their gravelly analogues. The lenses are coarse, medium, or fine sand and are 1/8 to 3 inches thick. They make up 20 percent or more of the horizon. They are massive with or without plate-like divisions. Consistence is firm or very firm. Some pedons have friable C horizons up to 8 inches thick.

Bombay Series

The Bombay series consists of very deep, moderately well drained soils on summits, shoulders, and backslopes of glaciated ridges, and on till plains in the Champlain Valley. Bombay soils formed in loamy sediments underlain by firm, loamy, calcareous lodgment till. Slopes range from 3 to 8 percent.

Bombay soils are associated on the landscape with Nellis, Amenia, Howard, Cayuga, Vergennes, and Kingsbury soils. Nellis soils are well drained and have lower clay content in the solum. Amenia soils have lower clay content in the solum. Howard soils are gravelly and are well drained to excessively drained. Cayuga soils are clayey over loamy. Vergennes soils are clayey. Kingsbury soils are clayey and somewhat poorly drained.

Typical pedon of Bombay gravelly loam, in a hay field, in the town of Willsboro, 200 feet east of a point on Point Road that is 900 feet south of the junction of Point Road and Indian Bay Road; USGS Willsboro 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 25 minutes 34 seconds N. and long. 73 degrees 22 minutes 28 seconds W.

Ap—0 to 10 inches, dark brown (10YR 3/3) gravelly loam; pale brown 10YR 6/3 dry; weak medium and fine granular structure; very friable; many very fine, and common fine and medium roots; common fine tubular pores; 20 percent gravel and 5 percent cobbles; slightly acid; abrupt smooth boundary.

Bt/E—10 to 18 inches, dark yellowish brown (10YR 4/4) gravelly loam; weak medium and thick platy parting to weak medium and fine subangular blocky structure; friable; many very fine and few fine roots; common fine tubular and few medium vesicular pores; few thin clay films on surfaces along pores; brown (10YR 5/3) ped exteriors 1 to 2 mm thick that constitutes less than 15 percent E material in the layer; 15 percent gravel and 5 percent cobbles; few fine distinct yellowish brown

(10YR 5/6) soft masses of iron accumulation in lower part; slightly acid; clear wavy boundary.

Bt—18 to 25 inches, dark yellowish brown (10YR 4/4) gravelly loam; weak medium subangular blocky structure; friable; common very fine roots; common very fine and fine tubular and vesicular pores; common distinct moderately thick clay films on surfaces along pores and on all faces of peds; 20 percent gravel; common fine and medium distinct yellowish brown (10YR 5/6) and few fine faint brown (10YR 5/3) soft masses of iron accumulation; slightly acid; clear smooth boundary.

BC—25 to 36 inches, [dark] brown (10YR 4/3) gravelly loam; weak thick platy parting to weak fine subangular blocky structure; friable; common very fine roots; few very fine tubular pores; 20 percent gravel; few secondary calcium carbonate accumulations along surfaces of rock fragments and between plates; common fine distinct yellowish brown (10YR 5/6) and few fine faint brown (10YR 5/3) soft masses of iron accumulation; slightly alkaline, slightly effervescent; clear wavy boundary.

C—36 to 72 inches, light olive brown (2.5Y 5/4) gravelly fine sandy loam; massive with plate-like divisions; firm; few very fine roots; 15 percent gravel and 5 percent cobbles; one 5 mm thick layer of secondary calcium carbonate in upper part; few fine distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; moderately alkaline, strongly effervescent.

The thickness of the solum ranges from 30 to 60 inches. Depth to bedrock is greater than 60 inches. Depth to carbonates is 25 to 70 inches. Redoximorphic features occur within 40 inches of the mineral soil surface. Rock fragments range from 5 to 30 percent, by volume, in the mineral solum and from 10 to 35 percent in the substratum.

The Ap horizon has hue of 7.5YR to 2.5Y, value of 3 or 4 and chroma of 2 or 3. Texture is silt loam, loam or fine sandy loam in the fine earth fraction. This horizon has weak or moderate, fine or medium granular structure, and very friable or friable consistence. Reaction ranges from strongly acid to slightly acid.

The BE horizon, where present, has hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 6. Texture is silt loam, loam, very fine sandy loam, or fine sandy loam in the fine earth fraction. The horizon is massive, or it has weak or moderate granular, subangular blocky, or platy structure. Consistence is very friable to firm. Reaction ranges from strongly acid to neutral.

Some pedons have an E horizon with higher value that replaces the BE horizon.

The Bt/E horizons have properties like the Bt horizon in the interiors of the peds, and E-like material on the exterior of ped. The E material has hue of 7.5YR to 2.5Y, value of 5 to 8 and chroma of 2 to 6. Redoximorphic accumulations may or may not be present in the Bt/E horizons. Reaction ranges from strongly acid to neutral.

The Bt horizon has hue of 5YR to 10YR, value of 3 to 5 and chroma of 3 to 6. Texture is silt loam, loam, or fine sandy loam in the fine earth fraction. Structure is weak or moderate, subangular blocky. Consistence is friable or firm. Redoximorphic accumulations range from few to many. Reaction ranges from strongly acid to neutral.

The BC horizon has texture and color similar to the Bt horizon except for value which is generally higher. Structure is subangular blocky or platy, or the horizon is massive. Redoximorphic accumulations range from few to many. Reaction ranges from moderately acid to slightly alkaline.

The C or Cd horizon has hue of 5YR to 2.5Y, value of 3 to 6 and chroma of 2 to 4. Texture is fine sandy loam or loam in the fine earth fraction. The horizon is massive or may have weak or moderate plate-like divisions. Consistence is friable or firm. Redoximorphic accumulations range from few to many. Reaction ranges from slightly acid to moderately alkaline.

Bucksport Series

The Bucksport series consists of very deep, very poorly drained soils in depressions on ground moraines, outwash plains, lake plains, and glacial till plains. Bucksport soils formed in organic deposits greater than 51 inches thick. Slopes range from 0 to 1 percent.

Bucksport soils are associated on the landscape with Wonsqueak, Typic Endoaquolls, Pyrities, Sunapee, Kalurah, and Malone soils. Wonsqueak soils have a 16 to 51 inch thick organic deposit. Typic Endoaquolls soils are loamy, and have a less than 16 inch organic deposit. Kalurah soils are loamy and moderately well drained. Malone soils are loamy and somewhat poorly drained. Pyrities soils are loamy and are well drained.

Typical pedon of Bucksport mucky peat, in the town of Clinton, Clinton County NY, about 2.3 miles west of intersection of Clinton MIlls Road and Bull Run Road, and 50 feet south of Clinton Mills Road; USGS Ellenburg Depot 7.5 minute topographic quadrangle; NAD 1927; lat. 44 degrees 57 minutes 34 seconds N. and long. 73 degrees 52 minutes 17 seconds W.

Oe—0 to 7 inches; dark reddish brown (5YR 2/2) mucky peat; 50 percent unrubbed fiber, 35 percent rubbed fiber; weak medium and fine granular structure; nonsticky, nonplastic; common medium, fine, and very fine roots; strongly acid (5.2 in 0.01M calcium chloride); clear smooth boundary.

Oa1—7 to 31 inches; dark reddish brown (5YR 3/2) muck; 40 percent unrubbed fiber and 10 percent rubbed fiber; weak medium and fine subangular blocky structure; nonsticky, nonplastic; few fine and very fine roots; very strongly acid (5.0 in 0.01M calcium chloride); clear smooth boundary.

Oa2—31 to 47 inches; black (5YR 2/1) muck; 30 percent unrubbed fiber and 5 percent rubbed fiber; weak medium subangluar blocky structure; nonsticky, nonplastic; extremely acid (4.1 in 0.01M calcium chloride); gradual smooth boundary.

Oa3—47 to 72 inches; black (5YR 2/1) muck; 10 percent unrubbed fiber and 5 percent rubbed fiber; massive; nonsticky, nonplastic; very strongly acid (4.8 in 0.01M calcium chloride).

The thickness of the organic material is greater than 51 inches and ranges to over 12 feet. The depth to bedrock is more than 60 inches. The content of woody fragments ranges from 0 to 20 percent throughout the soil and consists of twigs, branches, and stumps. The content of mineral material ranges from 0 to 20 percent throughout. Fibers are typically of herbaceous and woody origin but in some pedons fibers from sphagnum moss make up 70 percent of the surface tier and make up thin layers in the subsurface and bottom tier.

The surface tier is neutral or has hue of 2.5YR to 10YR, value of 2 to 4 and chroma of 0 to 2. The surface tier is typically sapric material but in some pedons is hemic or fibric material with or without sapric materials. This tier is massive or has weak fine or medium granular, weak fine or medium subangular or weak thin platy structure. Consistence is nonsticky or slightly sticky. Reaction ranges from extremely acid to strongly acid in 0.01M calcium chloride.

The subsurface and bottom tiers have hue of 2.5YR to 10YR, value of 2 to 4 and chroma of 1 to 3. These tiers are typically sapric material but some pedons have thin layers of fibric material with a total thickness of less than 5 inches or thin layers of hemic material with a total thickness of less than 10 inches. The tiers are massive or have weak thin to very thick platy or weak fine or medium subangular blocky structure. Consistence is nonsticky or slightly sticky. Reaction ranges from extremely acid to moderately acid in the subsurface tier and very strongly acid to slightly acid in the bottom tier in 0.01M calcium chloride.

Burnt Vly Series

The Burnt Vly series consists of very deep, very poorly drained mucky soils on broad flood plains, in depressions on outwash plains and deltas, and on toeslopes and upland depressions of glaciated hills and ridges in the Adirondack Upland. Burnt Vly soils formed in saturated, decomposing plant material overlying sandy sediments. Slopes range from 0 to 1 percent.

Burnt Vly soils are associated on the landscape with Pleasant Lake, Rumney, Colton, Searsport, Naumburg, Tahawus, Adirondack, and Monadnock soils. Pleasant Lake soils are greater than 51 inches deep to mineral soil. Rumney soils are loamy and poorly drained. Colton soils are gravelly and excessively drained. Searsport and Tahawus soils are sandy. Naumburg soils are sandy and somewhat poorly drained. Adirondack soils are loamy and somewhat poorly drained. Monadnock soils are loamy over sandy and are well drained.

Typical pedon of Burnt Vly peat, in the town of St Armand, 300 feet south of River Road, and .5 miles from Route 3 junction at Bloomingdale; USGS Saranac Lake 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 24 minutes 07 seconds N. and long. 74 degrees 04 minutes 38 seconds W.

Oi—0 to 10 inches, light yellowish brown 2.5Y 6/4) broken face and rubbed peat (fibric material); 95 percent unrubbed fiber, 90 percent rubbed fiber; massive; very friable; many very fine, few medium and coarse roots; extremely acid; abrupt smooth boundary.

Oe—10 to 15 inches, black (10YR 2/1) broken face and very dark gray (10YR 3/1) rubbed mucky peat (hemic material); 75 percent unrubbed fiber, 30 percent rubbed fiber; weak fine subangular blocky structure; very friable; common very fine roots; extremely acid; clear smooth boundary.

Oa1—15 to 24 inches, black (10YR 2/1) broken face and very dark brown (10YR 2/2) rubbed muck (sapric material); 12 percent unrubbed fiber, less than 1 percent rubbed fiber; weak fine and medium subangular blocky structure; very friable; common very fine roots; extremely acid; clear smooth boundary.

Oa2—24 to 34 inches, very dark brown (10YR 2/2) broken face and rubbed muck (sapric material); 12 percent unrubbed fiber, less than 1 percent rubbed fiber; weak medium subangular blocky structure; very friable; very strongly acid; abrupt smooth boundary.

2Cg1—34 to 56 inches, grayish brown (2.5Y 5/2) loamy fine sand; massive; friable; moderately acid; abrupt smooth boundary.

2Cg2—56 to 72 inches, olive gray (5Y 5/2) very fine sandy loam; massive; friable; moderately acid.

The depth to the mineral horizon ranges from 16 to 51 inches. In some pedons, the mineral layer is a single layer 12 inches or more thick with organic material above and below. The organic part of the control section has a pH of less than 4.5 in 0.01M calcium chloride.

The surface tier has hue of 2.5Y to 10YR, or is neutral, value of 2 to 7, and chroma of 0 to 6. Values normally increase several units when pressed. Fiber content ranges from 75 to 95 percent before rubbing and 30 to 90 after rubbing.

In some pedons the surface tier is muck or mucky peat.

The subsurface tier has hue of 10YR to 5YR, or is neutral, value of 2 to 6, and chroma of 0 to 3. The materials are dominantly muck (sapric material), but layers of peat (fibric material) totaling less than 5 inches in thickness and mucky peat (hemic material) totaling less than 10 inches are in some pedons. This horizon typically is massive with some pedons having a weak platy, blocky, or granular structure.

The 2C horizon has hue of 2.5YR to 5Y, value of 3 to 6, and chroma of 0 to 6. Texture is sand, loamy sand, fine sand, very fine sand, loamy fine sand, gravelly loamy

sand, gravelly sand, or very gravelly sand. Reaction ranges from extremely acid to slightly acid. Some pedons have thin strata of very fine and/or fine sandy loam.

Catden Series

The Catden series consists of very deep, very poorly drained soils in shallow bays of Lake Champlain, and in depressions on deltas and lake plains in the Champlain Valley. Catden soils formed in deep, saturated, decomposing plant material. Slopes range from 0 to 2 percent.

Catden soils are associated on the landscape with Whallonsburg, Vergennes, Kingsbury, Covington, Windsor, and Howard soils. Whallonsburg soils are 16 to 51 inches deep to clay. Vergennes, Kingsbury, and Covington soils are clayey and are moderately well drained, somewhat poorly drained, and poorly drained respectively. Windsor soils are sandy and excessively drained. Howard soils are gravelly and are well drained to excessively drained.

Typical pedon of Catden muck, in the town of Chesterfield, 800 feet south of the Clinton County line and 140 feet west of Lake Champlain (40 feet west of road), in Wickham Marsh; USGS Keeseville 7.5 minute quadrangle; NAD 1927; lat. 44 degrees 32 minutes 21 seconds N. and long. 73 degrees 25 minutes 07 seconds W.

Oa1—0 to 3 inches, black (10YR 2/1) muck; 30 percent unrubbed fiber, 5 percent rubbed fiber; weak fine granular structure; very friable; common fine roots; 5 percent woody fragments; 10 percent fine and very fine sand; neutral; abrupt smooth boundary.

Oa2—3 to 6 inches, very dark gray (10YR 3/1) muck; 20 percent unrubbed fiber, 3 percent rubbed fiber; weak fine granular structure; very friable; common fine roots; 5 percent woody fragments; 50 percent fine and very fine sand; neutral; abrupt smooth boundary.

Oa3—6 to 37 inches, black (5YR 2.5/1) muck; 35 percent unrubbed fiber, 5 percent rubbed fiber; massive; very friable; few fine roots in upper part; 15 percent woody fragments; 5 percent very fine sand; slightly acid; gradual smooth boundary.

Oa4—37 to 46 inches, dark reddish brown (5YR 2.5/2) muck; 40 percent unrubbed fiber, 10 percent rubbed fiber; massive; very friable; 15 percent woody fragments; 5 percent very fine sand; slightly acid; gradual smooth boundary.

Oa5—46 to 71 inches, dark reddish brown (5YR 2.5/2) muck; 65 percent unrubbed fiber, 15 percent rubbed fiber; massive; very friable; 20 percent woody fragments; 5 percent very fine sand; neutral; gradual smooth boundary.

Oa6—71 to 80 inches, dark reddish brown (5YR 3/2) muck; 30 percent unrubbed fiber, 5 percent rubbed fiber; massive; very friable; 10 percent woody fragments; 5 percent very fine sand; neutral.

The organic material extends to a depth of 51 inches or more. The reaction throughout the pedon ranges from very strongly acid to neutral in 0.01M calcium chloride. The pH value is 4.5 or more (in 0.01M calcium chloride) in one or more layers of organic soil materials within the control section. Woody fragments occur throughout the profile in most pedons consisting of twigs, branches, logs or stumps, and range from 0 to 30 percent by volume in the control section. Fragments range in size from 3/4 inch to more than a foot in diameter.

The surface tier has hue of 5YR to 2.5Y, or is neutral; value of 1 to 4, and chroma of 0 to 6. This tier is dominantly muck (sapric material); however, some pedons have surface layers of peat (fibric material) or mucky peat (hemic material). The structure of the surface tier is weak or medium, coarse to fine granular or subangular blocky, or is massive.

The subsurface tier has hue of 5YR to 2.5Y, or is neutral, value of 2 to 3, and chroma of 0 to 4. Chroma or value or both may change from 0.5 to 2 units upon

rubbing. Broken faces become darker upon brief exposure to air. The layer is dominated by sapric material with a rubbed fiber content of less than 17 percent of the organic volume. The subsurface tier has granular or blocky structure or is massive. The unrubbed, well-decomposed organic material resembles woody plant tissue.

The bottom tier has colors similar to the subsurface tier and has variable amounts of woody and herbaceous layers, however, woody fibers are dominant. This tier commonly is massive but in some pedons it has weak coarse blocky or thick platy structure. The subsurface and bottom tiers are dominantly sapric material but some pedons have thin layers of hemic material.

Cayuga Series

The Cayuga series consists of very deep, moderately well drained soils on backslopes and footslopes of ridges and on lake plains in the Champlain Valley. Cayuga soils formed in clayey lake-laid sediments underlain by dense, calcareous lodgment till. Slopes range from 3 to 15 percent.

Cayuga soils are associated on the landscape with Churchville, Vergennes, Kingsbury, Nellis, Amenia, and Bombay soils. Churchville soils are somewhat poorly drained. Vergennes soils are clayey throughout. Kingsbury soils are clayey throughout and somewhat poorly drained. Nellis soils are loamy and well drained. Amenia and Bombay soils are loamy throughout.

Typical pedon of Cayuga silty clay loam, 3 to 8 percent slopes, in the town of Essex, 80 feet west of a point on Middle Road that is 1,700 feet south of the junction of Middle Road and School Road, in a hay field; USGS Willsboro 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 17 minutes 39 seconds N. and long. 73 degrees 22 minutes 42 seconds W.

Ap—0 to 8 inches, dark brown (10YR 3/3) silty clay loam; pale brown (10YR 6/3) dry; moderate medium granular structure; friable; many fine and very fine roots; 1 percent rock fragments; slightly acid; abrupt smooth boundary.

E—8 to 14 inches, brown (10YR 5/3) silty clay loam; moderate medium subangular blocky structure; firm; common fine and very fine roots; 5 percent rock fragments; many medium prominent strong brown (7.5YR 5/6) soft masses of iron accumulation; moderately acid; clear smooth boundary.

Bt1—14 to 19 inches, brown (10YR 4/3) clay; moderate medium subangular blocky structure; firm; common fine and very fine roots; common medium faint grayish brown (10YR 5/2) silt coatings, light gray (10YR 7/2) dry, on ped exteriors 2 millimeters thick; many moderately thick clay films on ped faces and pore linings; 5 percent rock fragments; common medium prominent strong brown (7.5YR 5/8) soft masses of iron accumulation in lower part; neutral; clear smooth boundary.

Bt2—19 to 24 inches, brown (10YR 4/3) clay; strong fine and medium angular blocky structure; firm; few fine and very fine roots; continuous thick clay films on ped faces and pore linings; 10 percent rock fragments; common medium faint yellowish brown (10YR 5/4) soft masses of iron accumulation; neutral; clear smooth boundary.

BC—24 to 28 inches, very dark grayish brown (10YR 3/2) clay loam; massive parting to moderate medium angular blocky structure; firm; few fine and very fine roots; 10 percent rock fragments; common medium faint grayish brown (10YR 5/2) iron depletions and common medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; moderately alkaline, strongly effervescent; clear smooth boundary.

2C—28 to 72 inches, very dark grayish brown (10YR 3/2) silt loam; massive; firm; 15 percent rock fragments; moderately alkaline, violently effervescent.

The thickness of the solum ranges from 20 to 40 inches. Depth to bedrock is greater than 60 inches. Depth to the lithologic till substratum is 20 to 40 inches. Rock fragments range from 0 to 10 percent by volume above the lithologic discontinuity and from 10 to 50 percent below. Depth to carbonates ranges from 20 inches to 60 inches or more.

The Ap horizon has hue of 7.5YR to 2.5Y, value of 3 or 4 and chroma of 2 to 4. Texture of the fine-earth fraction ranges from fine sandy loam to silty clay loam. Reaction ranges from moderately acid to neutral.

The E horizon has hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 2 or 3. Texture of the fine-earth fraction ranges from fine sandy loam through silty clay loam. Structure is weak or moderate, subangular blocky or platy, or the horizon is massive. Consistence is friable or firm. Reaction ranges from moderately acid to neutral.

In some pedons a Bt/E horizon replaces or underlies the E horizon. The E part has moist colors similar to the E horizon and dry color value of 6 to 8 and chroma of 2 or 3.

The Bt horizon has hue of 5YR to 2.5Y, value of 3 to 5, and chroma of 3 or 4. In pedons lacking Bt/E horizons, the upper 2 to 4 inches of the Bt horizon has uncoated silt and sand grains on faces of peds 1 to 2 millimeters thick with dry color with value of 6 to 8 and chroma of 2 or 3. The horizon often lacks redoximorphic features, but some pedons have few or common, faint or distinct iron oxide concentrations. Texture of the fine-earth fraction ranges from silty clay loam or clay loam, through clay. Structure is moderate or strong, fine to coarse, subangular or angular blocky, or prismatic over structure parting to these. Consistence is firm or very firm. Reaction ranges from moderately acid to slightly alkaline.

Some pedons have a BC horizon with hue of 5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 4. Texture is silty clay loam or clay loam to clay. Structure is moderate or strong, medium or coarse subangular or angular blocky, or it is massive. Consistence is firm or very firm. Reaction ranges from slightly acid to moderately alkaline.

The 2C horizon has hue of 5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 4. Texture of the fine-earth fraction is fine sandy loam, loam, clay loam, silt loam or silty clay loam. Reaction ranges from neutral to moderately alkaline. Free carbonates are present in most pedons.

Champlain Series

The Champlain series consists of very deep, excessively drained to somewhat excessively drained, sandy soils on deltas, outwash plains, outwash terraces, and high stream terraces in the Adirondack Upland. Champlain soils formed in stratified, water deposited sandy sediments. Slopes range from 3 to 45 percent.

Champlain soils are associated on the landscape with Mooers, Colton, Monadnock, Becket, Tunbridge, Rumney, and Burnt Vly soils. Mooers soils are moderately well drained. Colton soils are gravelly and excessively drained. Monadnock soils are loamy over sandy or gravelly, and are well drained. Becket soils are loamy and well drained. Tunbridge soils are loamy, well drained, and moderately deep to meta-igneous bedrock. Rumney soils are loamy and poorly drained. Burnt Vly soils are mucky and very poorly drained.

Typical pedon of Champlain loamy sand, 3 to 8 percent slopes, in a hay field, 50 feet east of a point on Cheney Road that is 1.4 miles south of the junction of Cheney Road and Pelfershire Road; USGS Port Henry 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 03 minutes 44 seconds N. and long. 73 degrees 29 minutes 02 seconds W.

Ap1—0 to 7 inches; very dark grayish brown (10YR 3/2) loamy sand; weak fine granular structure; very friable; many fine and few medium roots; 7 percent rock fragments; moderately acid; clear wavy boundary.

Ap2—7 to 10 inches; brown (10YR 4/3) loamy sand; weak medium subangular blocky parting to weak medium granular structure; very friable; many fine roots; 5 percent rock fragments; moderately acid; abrupt smooth boundary.

Bw1—10 to 16 inches; strong brown (7.5YR 4/6) sand; weak fine and medium subangular blocky structure; very friable; common fine roots; 5 percent rock fragments; few fine tubular pores; slightly acid; abrupt wavy boundary.

Bw2—16 to 24 inches; yellowish brown (10YR 5/4) fine sand; single grain; loose; common fine roots; 3 percent rock fragments; slightly acid; clear wavy boundary.

BC—24 to 35 inches; light olive brown (2.5Y 5/4) fine sand; single grain; loose; few fine roots; less than 1 percent rock fragments; slightly acid; gradual wavy boundary.

C1—35 to 50 inches; grayish brown (2.5Y 5/2) fine sand; single grain; loose; few fine roots; slightly acid; clear smooth boundary.

C2—50 to 72 inches; pale brown (10YR 6/3) and dark grayish brown (10YR 4/2) sand; single grain; loose; few fine roots; 1 percent rock fragments; slightly acid.

The thickness of the solum ranges from 12 to 36 inches. Depth to bedrock is greater than 60 inches. Rock fragments, mainly gravel, range from 0 to 10 percent, by volume, throughout the soil.

Some pedons have an O horizon composed of fibric or hemic material. Reaction ranges from extremely acid to strongly acid.

The Ap horizon has a hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 1 to 3. Texture is fine sand, loamy fine sand, sand or loamy sand in the fine earth fraction. This horizon has fine or medium granular and subangular blocky structure. Consistence is very friable or friable. Reaction ranges from strongly acid to slightly acid.

Some pedons have an A horizon in place of the Ap horizon.

The Bw horizon has hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 8. Texture is dominantly fine sand but ranges to loamy fine sand, sand or loamy sand in the fine earth fraction. This horizon has subangular blocky structure or is single grain. Consistence is very friable or loose. Reaction ranges from strongly acid to slightly acid.

The BC horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 6. Texture is dominantly fine sand, but ranges to loamy fine sand, sand or loamy sand in the fine earth fraction. Consistence is single grain and loose or very friable. Reaction is moderately acid to neutral.

The C horizon has hue of 10YR to 5Y, value of 4 to 7, and chroma of 1 to 6. Texture is fine sand, loamy fine sand, sand or loamy sand in the fine earth fraction. Reaction ranges from moderately acid to neutral.

Charles Series

The Charles series consists of very deep, poorly drained soils on flood plains in intermontane valleys of the Adirondack Upland. Charles soils formed in silty sediments deposited by flood waters. Slopes range from 0 to 2 percent.

Charles soils are associated on the landscape with Lovewell, Cornish, Medomak, Depeyster, Monadnock and Skerry soils. Lovewell soils are moderately well drained. Cornish soils are somewhat poorly drained. Medomak soils are very poorly drained. Depeyster soils are higher in clay and moderately well drained. Monadnock soils are loamy over sandy or gravelly, and are well drained. Skerry soils are loamy and moderately well drained.

Typical pedon of Charles silt loam, in the town of Keene, on the west side of Marcy Airfield, 500 feet north of a light pole in the parking area, at the margin of brush and field; USGS Mount Marcy 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 13 minutes 09 seconds N. and long. 73 degrees 47 minutes 22 seconds W.

Ap—0 to 9 inches, very dark grayish brown (10YR 3/2) silt loam; light brownish gray (10YR 6/2) dry; moderate fine granular structure; very friable; common fine and

very fine, few medium roots; common fine distinct dark brown (7.5YR 3/4) oxidized rhizospheres; strongly acid; abrupt smooth boundary.

A—9 to 16 inches, very dark gray (2.5Y 3/1) silt loam; gray (2.5Y 6/1) dry; moderate medium granular structure; very friable; few fine and very fine roots; few fine and very fine tubular, and few fine vesicular pores; common fine and medium distinct dark yellowish brown (10YR 3/4) and few fine prominent dark reddish brown (5YR 3/4) oxidized rhizospheres; strongly acid; clear smooth boundary.

Cg1—16 to 28 inches, dark gray (2.5Y 4/1) silt loam; massive; very friable; few fine and very fine tubular pores; less than 1 percent rock fragments; common medium faint grayish brown (2.5Y 5/2) iron depletions, and common fine distinct dark yellowish brown (10YR 3/4) soft masses of iron accumulation; strongly acid; gradual wavy boundary.

Cg2—28 to 38 inches, grayish brown (2.5Y 5/2) silt loam; massive; very friable; few fine and very fine tubular pores; common medium distinct light olive brown (2.5Y 5/4) and common fine prominent dark brown (7.5YR 3/4) soft masses of iron accumulation; strongly acid; clear wavy boundary.

Cg3—38 to 46 inches, light brownish gray (2.5Y 6/2) very fine sandy loam; massive; very friable; few fine and very fine tubular pores; common fine prominent yellowish brown (10YR 5/6) soft masses of iron accumulation on pore linings; moderately acid; clear wavy boundary.

2Cg4—46 to 52 inches, dark gray (5Y 4/1) loamy fine sand; single grain; loose; moderately acid; gradual wavy boundary.

2Cg5—52 to 72 inches, dark gray (5Y 4/1) loamy sand; single grain; loose; 14 percent rock fragments; moderately acid.

Depth to bedrock is more than 60 inches. A few fine pebbles occur in some pedons. Reaction ranges from extremely acid to slightly acid throughout, unless limed, but some sub-horizon within the control section has a reaction of moderately acid or slightly acid. Some pedons have buried horizons.

The Ap horizon has hue of 10YR to 5Y, value of 3 or 4 and chroma of 1 to 3. Dry value is 6 or 7. Undisturbed areas have an A horizon 1 to 5 inches thick, that has hue of 10YR to 5Y, value of 3 or 4 and chroma of 1 to 3. They are silt loam or very fine sandy loam. They have weak or moderate, fine or medium granular structure.

The C horizon has hue of 2.5Y to 5BG, value of 4 to 6, and chroma of 1 to 3. At least one sub-horizon between a depth of 10 and 30 inches has a hue of 2.5Y, value of 4 or 5, and chroma of 2. It is silt loam, very fine sandy loam, or loamy very fine sand, and in some pedons below 40 inches, there are strata of silt loam to fine gravel with gravel ranging from 0 to 15 percent. The upper part of the C horizon has weak, fine or medium granular structure or it is massive. The lower part of the C horizon is massive or single grain. Consistence ranges from loose to friable.

Correlation Note: In the CkA map unit has an A horizon that is thicker than the range of the Charles series. This should not significantly affect use and management on a local basis for most purposes.

Charlton Series

The Charlton series consists of very deep, well drained soils on summits, shoulders, backslopes, and footslopes of hills and ridges, and on till plains in the Champlain Valley. Charlton soils formed in loamy, friable sediments deposited by glacial ice. Slopes range from 3 to 35 percent.

Charlton soils are associated on the landscape with Chatfield, Hollis, Georgia, Vergennes, Kingsbury, and Windsor soils. Chatfield and Hollis soils are moderately deep and shallow respectively to meta-igneous bedrock. Georgia soils are moderately well drained. Vergennes and Kingsbury soils are clayey and moderately well drained

and somewhat poorly drained respectively. Windsor soils are sandy and excessively drained.

Typical pedon of Charlton gravelly fine sandy loam, in a map unit of Charlton-Chatfield complex, 8 to 15 percent slopes, rocky, very stony, in a woodlot, in the town of Westport, 1,050 feet due north of a point on County Route 8, that is 150 feet east of the junction of County Route 8 and Eggleston Road; USGS Port Henry 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 14 minutes 02 seconds N. and long. 73 degrees 28 minutes 12 seconds W.

A—0 to 5 inches, very dark grayish brown (10YR 3/2) gravelly fine sandy loam; moderate fine and medium granular structure; very friable; many fine and medium, and common coarse roots; 20 percent rock fragments; moderately acid; clear smooth boundary.

Bw1—5 to 11 inches, strong brown (7.5YR 4/6) gravelly sandy loam; weak fine and medium subangular blocky structure; very friable; common fine and medium, and few coarse roots; 20 percent rock fragments; moderately acid; clear wavy boundary.

Bw2—11 to 19 inches, dark yellowish brown (10YR 4/4) gravelly sandy loam; weak fine and medium subangular blocky structure; very friable; common fine and medium, and few coarse roots; 20 percent rock fragments; moderately acid; clear wavy boundary.

BC—19 to 36 inches, yellowish brown (10YR 5/4) gravelly fine sandy loam; weak thin and medium platy structure; friable; few fine and medium roots; 15 percent rock fragments; moderately acid; clear wavy boundary.

C1—36 to 45 inches, dark yellowish brown (10YR 4/4) gravelly sandy loam; massive with weak thin and medium plate-like divisions; firm; 15 percent rock fragments; moderately acid; clear wavy boundary.

C2—45 to 72 inches, 60% light yellowish brown (2.5Y 6/4) and 40 percent brown (10YR 4/3) fine sandy loam; massive with weak medium and thick plate-like divisions; firm; 10 percent rock fragments; common fine and medium distinct strong brown (7.5YR 5/8) soft masses of iron accumulation on plate surfaces; moderately acid.

The thickness of the solum ranges from 20 to 38 inches. Depth to bedrock is commonly more than 6 feet. Rock fragments range from 5 to 35 percent by volume to a depth of 40 inches and up to 50 percent below 40 inches. Except where the surface layer is stony, the fragments are mostly subrounded gravel and typically make up 60 percent or more of the total rock fragments. Unless the soil is limed, reaction ranges from very strongly acid to moderately acid.

The A horizon has hue of 7.5YR or 10YR, value of 2 or 3, and chroma of 1 to 3. Disturbed pedons have an Ap horizon with value of 3 or 4 and chroma of 2 to 4. The A or Ap horizon is sandy loam, fine sandy loam, or loam in the fine-earth fraction. This horizon has weak or moderate granular structure and is friable or very friable.

Some pedons have a thin E horizon below the A horizon. It has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 to 3. Texture, structure, and consistence are like the A horizon.

The upper part of the Bw horizon has hue of 7.5YR or 10YR and value and chroma of 4 to 6. The lower part of the Bw horizon has hue of 10YR or 2.5Y and value and chroma of 4 to 6. Texture of the Bw horizon is loam, fine sandy loam, or sandy loam with less than 65 percent silt plus very fine sand in the fine earth fraction. It has weak granular or subangular blocky structure, or it is massive. Consistence is friable or very friable.

Some pedons have a BC horizon with value and chroma like the lower part of the Bw horizon, but includes hue of 5Y. The BC horizon commonly has texture, structure, and consistence like the Bw horizon but the range includes non-pedogenetically derived structure appearing in the form of thin plates.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 to 6. Texture is loam, fine sandy loam, or sandy loam in the fine-earth fraction, with pockets or thin lenses of loamy sand. The horizon is massive or is non-pedogenetically derived, appearing in the form of thin plates. Consistence commonly is very friable or friable but in some pedons includes firm.

Chatfield Series

The Chatfield series consists of moderately deep, well drained soils on summits, shoulders, and backslopes of hills and ridges in the Champlain Valley. Chatfield soils formed in loamy sediments deposited by glacial ice, and are underlain by massive meta-igneous bedrock. Slopes range from 3 to 60 percent (fig. 34).

Chatfield soils are associated on the landscape with Pittsfield, Charlton, Hollis, Vergennes, Kingsbury, and Windsor soils. Pittsfield and Charlton soils are very deep to bedrock. Hollis soils are shallow to meta-igneous bedrock. Vergennes and Kingsbury soils are very deep, clayey, and are moderately well drained and somewhat poorly drained respectively. Windsor soils are very deep, sandy and excessively drained.

Typical pedon of Chatfield gravelly fine sandy loam, 8 to 15 percent slopes, from a map unit of Chatfield-Hollis Complex, 8 to 15 percent slopes, very rocky, very stony, in the town of Chesterfield, .95 miles south on Mace Chasm Road from the intersection with Port Douglass Road, and .17 mile east of Mace Chasm Road. Follow trail across Mud Brook, take extreme left fork, 50 feet off trail to east, 10 feet north of rock outcrop, in a forested area. USGS Willsboro 15 minute quadrangle; 44 degrees 28 minutes 50 seconds north latitude and 73 degrees 27 seconds 36 minutes west longitude; NAD 1927.

Oe—0 to 1 inch, moderately decomposed plant material.

A—1 to 7 inches, dark brown (10YR 3/3) gravelly fine sandy loam; pale brown (10YR 6/3) dry); weak fine granular structure; very friable; common medium roots; 15 percent rock fragments; strongly acid; abrupt smooth boundary.

Bw1—7 to 19 inches, strong brown (7.5YR 4/6) gravelly fine sandy loam; weak medium subangular blocky structure; very friable; common medium roots; 34 percent rock fragments; moderately acid; abrupt smooth boundary.

Bw2—19 to 27 inches, strong brown (7.5YR 4/6) fine sandy loam; moderate fine subangular blocky structure; very friable; common medium roots; 10 percent rock fragments; moderately acid; clear smooth boundary.

C—27 to 32 inches, brown (7.5YR 4/4) fine sandy loam; massive; friable; 10 percent rock fragments; moderately acid; abrupt smooth boundary.

R—32 inches, meta-igneous bedrock.

The thickness of the solum ranges from 16 to 36 inches. Depth to bedrock ranges from 20 to 40 inches. Rock fragments range from 5 to 50 percent by volume in the A horizon and from 5 to 35 percent in the B and C horizons. Rock fragments are typically gravel or channers but include cobbles and flagstones, particularly just above the bedrock.

The O horizon has hue of 7.5YR to 2.5Y, value of 2 or 3, and chroma of 0 to 2. It is slightly to highly decomposed organic material. Structure is granular or subangular blocky, or is massive. Consistence is very friable. Reaction ranges from extremely acid to moderately acid.

The A or Ap horizon has hue of 7.5YR to 2.5Y, value of 2 to 4, and chroma of 1 to 4. Dry value is 6 or higher. Texture ranges from sandy loam to loam in the fine-earth fraction. Structure is weak or moderate, fine or medium granular. Consistence is friable or very friable. Reaction ranges from very strongly acid to moderately acid, unless limed.

The AB or BA horizon has hue of 7.5YR to 2.5Y, value of 3 or 4, and chroma of 2 to 4. Texture is similar to the A horizon.

Figure 34.—Soil profile of the Chatfield series from a road cut, in the town of Westport, in a mixed pine and hardwood forest. Note the very stony surface. Depth to anorthositic gneiss bedrock (left of the spade) is about 30 inches.

The Bw horizon has hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 4 to 6. Texture ranges from sandy loam to silt loam in the fine-earth fraction. The Bw horizon has fine to coarse, subangular blocky or granular structure, and is friable or very friable. Reaction ranges from very strongly acid to moderately acid. Some pedons have a BC horizon with color and texture similar to the C horizon.

The C horizon, where present, has hue of 7.5YR to 5Y, value of 4 or 5, and chroma of 2 to 4. It ranges from sandy loam to silt loam in the fine-earth fraction and may have lenses or pockets of loamy sand. It is massive and may have plate-like divisions. It is friable or firm. Reaction ranges from very strongly to moderately acid.

The R horizon is dominantly schist, granite, or gneiss bedrock. In places, it is massive, but it dominantly has vertical and horizontal fractures in the upper 12 to 30 inches, but lacks significant displacement below the upper few inches.

Churchville Series

The Churchville series consists of very deep, somewhat poorly drained soils on footslopes of ridges and on lake plains in the Champlain Valley. Churchville soils formed in clayey lake-laid sediments underlain by dense, calcareous lodgment till. Slopes range from 2 to 8 percent.

Churchville soils are associated on the landscape with Cayuga, Kingsbury, Pittsfield, Nellis, Amenia, Chatfield, and Hollis soils. Cayuga soils are moderately well drained. Kingsbury soils are clayey throughout. Pittsfield and Nellis soils are loamy and well drained. Amenia soils are loamy and moderately well drained. Chatfield and Hollis soils are well drained, and are moderately deep and shallow to meta-igneous bedrock respectively (fig. 35).

Typical pedon of Churchville loam, 2 to 8 percent slopes, in a headland of a corn field, in the town of Essex, 830 feet north of a point on State Route 22 that is located 1,300 feet west of the intersection of State Route 22 and Middle Road; USGS Willsboro 15 minute topographic quadrangle; NAD 1983; lat. 44 degrees 18 minutes 32 seconds N. and long. 73 degrees 23 minutes 09 seconds W.

Ap—0 to 9 inches, dark brown (10YR 3/3) loam; pale brown (10YR 6/3) dry; weak medium and coarse subangular blocky structure parting to weak fine granular structure; friable; common fine and few medium and coarse roots; 5 percent rock fragments; neutral; abrupt smooth boundary.

Bt1—9 to 13 inches, brown (10YR 4/3) clay; light brownish gray (2.5Y 6/2) ped faces; weak medium and coarse subangular blocky structure; friable; few fine and medium roots; common fine vesicular and few fine and medium tubular pores; common thin clay films on ped faces and few thin discontinuous clay films in pore linings; many fine faint brown (7.5YR 4/4) and few fine distinct strong brown (7.5YR 4/6) soft masses of iron accumulation; neutral; clear wavy boundary.

Bt2—13 to 25 inches, brown (10YR 4/3) clay; light brownish gray (10YR 6/2) ped faces; weak coarse prismatic parting to moderate fine and medium subangular blocky structure; firm; few fine roots; few very fine vesicular and tubular pores; common thin clay films on ped faces; 3 percent rock fragments; common medium prominent strong brown (7.5YR 5/6) soft masses of iron accumulation; neutral; clear smooth boundary.

2Cd1—25 to 35 inches, 60 percent brown (10YR 5/3) and 40 percent olive brown (2.5Y 4/4) gravelly fine sandy loam; massive with medium and thick plate like

Figure 35.—Soil profile of the Churchville series from a backhoe test pit, in the town of Essex, in a hay field. The contact between the blue-gray, clayey subsoil (Bt horizon) and the gray-brown, loamy substratum (2C horizons) is well expressed in this photo.

divisions; firm; few fine roots; few fine vesicular and tubular pores; 19 percent rock fragments; common distinct yellow (10YR 7/8) carbonate coats on plate surfaces; common fine and medium faint yellowish brown (10YR 5/4) soft masses of iron accumulation; slightly alkaline, slightly effervescent; clear wavy boundary.

2Cd2—35 to 48 inches, grayish brown (2.5Y 5/2) gravelly fine sandy loam; massive with medium and thick plate like divisions; firm; few fine vesicular and tubular pores; 17 percent rock fragments; strongly alkaline, violently effervescent; gradual wavy boundary.

2Cd3—48 to 72 inches, grayish brown (2.5Y 5/2) fine sandy loam; massive; very firm; few fine vesicular and tubular pores; 13 percent rock fragments; strongly alkaline, violently effervescent.

The thickness of the solum and depth to the 2C horizon ranges from 20 to 40 inches. Depth to carbonates ranges from 20 to 50 inches. Depth to bedrock is greater than 60 inches. Volume of rock fragments, mostly gravel and channers, range from 0 to 10 percent in the solum and from 10 to 35 percent in the 2C horizon. Dominant chroma of more than 2 occurs in some subhorizons between the Ap and 30 inches.

The Ap horizon has hue of 2.5Y to 5YR, moist value of 3 to 5 and dry value of 6 or 7, with chroma of 2 or 3. Texture ranges from fine sandy loam to silty clay loam. Reaction ranges from moderately acid to neutral.

The E horizon, where present, has hue of 2.5Y to 2.5YR, value of 4 to 6 and chroma of 2 to 4, with common or many redoximorphic features. Texture ranges from fine sandy loam to silty clay loam. Structure is weak or moderate blocky or platy, consistence is friable or firm and reaction ranges from moderately acid to slightly alkaline.

The B/E horizon, where present, has ped coats similar in color and texture to the E horizon. Total thickness of the skeletons between adjoining peds is less than 5 mm and less than 15 percent of the soil volume. Ped interiors (B portion) have color value of 4 or 5 and chroma from 2 to 4. Structure is weak or moderate blocky or platy, consistence is friable or firm and reaction ranges from moderately acid to slightly alkaline. In some pedons the E or B/E horizon is replaced by an E/B or BE horizon.

The Bt horizon has hue of 2.5Y to 2.5YR, value of 3 to 5 and chroma of 2 to 4, with common or many redoximorphic features. Ped coatings have chroma of 2 or less. Texture is clay loam, silty clay loam, silty clay, or clay with a range in clay content from 35 to 55 percent. Structure is weak to strong, angular or subangular blocky, or prismatic. Clay films range from patchy to continuous on both horizontal and vertical ped faces. Reaction ranges from slightly acid to slightly alkaline.

Some pedons have a BC horizon with hue of 2.5Y to 2.5YR, value of 3 to 5 and chroma of 1 to 4, with common or many redoximorphic features.

The 2C 0r 2Cd horizon has hue of 2.5Y to 2.5YR, value of 3 to 5, and chroma of 1 to 4. Redoximorphic features range from none to common. Texture of the fine earth fraction is very fine sandy loam, fine sandy loam, loam, silt loam or silty clay loam. Consistence is friable to very firm. Reaction is slightly alkaline or strongly alkaline.

Claverack Series

The Claverack series consists of very deep, moderately well drained soils on deltas and beach ridges in the Champlain Valley. Claverack soils formed in sandy sediments underlain by clayey lacustrine or marine sediments. Slopes range from 0 to 8 percent.

Claverack soils are associated on the landscape with Cosad, Kingsbury, Cayuga, Deerfield, Howard, Amenia, and Farmington soils. Cosad soils are somewhat poorly drained. Kingsbury soils are clayey throughout and are somewhat poorly drained. Cayuga soils are clayey over loamy. Deerfield soils are sandy throughout. Howard soils are gravelly and are well to excessively drained. Amenia soils are loamy. Farmington soils are loamy, shallow to limestone bedrock, and well drained (fig. 36).

Typical pedon of Claverack loamy fine sand, 0 to 3 percent slopes, in the town of Essex, 300 feet south of a point on State Route 22 that is located 3,250 feet west of the hamlet of Essex, in an abandoned hay field; USGS Willsboro 15 minute quadrangle; NAD 1927; lat. 44 degrees 18 minutes 27 seconds N. and long. 73 degrees 22 minutes 04 seconds W.

Ap—0 to 12 inches, dark brown (10YR 3/3) loamy fine sand; pale brown (10YR 6/3) dry; weak fine and medium granular structure; very friable; many fine and very fine roots; moderately acid; abrupt smooth boundary.

Bw1—12 to 16 inches, dark yellowish brown (10YR 4/4) fine sand; weak medium subangular blocky structure; very friable; few fine and very fine roots; moderately acid; clear smooth boundary.

Bw2—16 to 22 inches, brown (10YR 4/3) fine sand; weak medium subangular blocky structure; friable; few medium prominent strong brown (7.5YR 5/6) soft masses of iron accumulation and few fine faint grayish brown (10YR 5/2) iron depletions at 20 inches; slightly acid; clear smooth boundary.

BC—22 to 26 inches, brown (10YR 4/3) fine sand; massive; firm; common medium prominent strong brown (7.5YR 5/6) soft masses of iron accumulation; neutral; abrupt smooth boundary.

2C—26 to 72 inches, dark grayish brown (10YR 4/2) clay; massive; firm; common medium prominent strong brown (7.5YR 5/6) soft masses of iron accumulation; slightly alkaline, slightly effervescent.

The thickness of the solum and depth to the underlying fine-textured material ranges from 20 to 40 inches. Depth to bedrock is greater than 60 inches. The soil contains few or no rock fragments. Soil reaction ranges from strongly acid to neutral in the solum and from neutral to moderately alkaline in the substratum.

The A or Ap horizon has hue of 7.5YR or 10YR, value of 3 or 4, 6 to 8 dry, and chroma of 2 or 3. Texture is fine sandy loam, loamy fine sand, loamy sand or sand. Structure is weak, very fine to medium, granular.

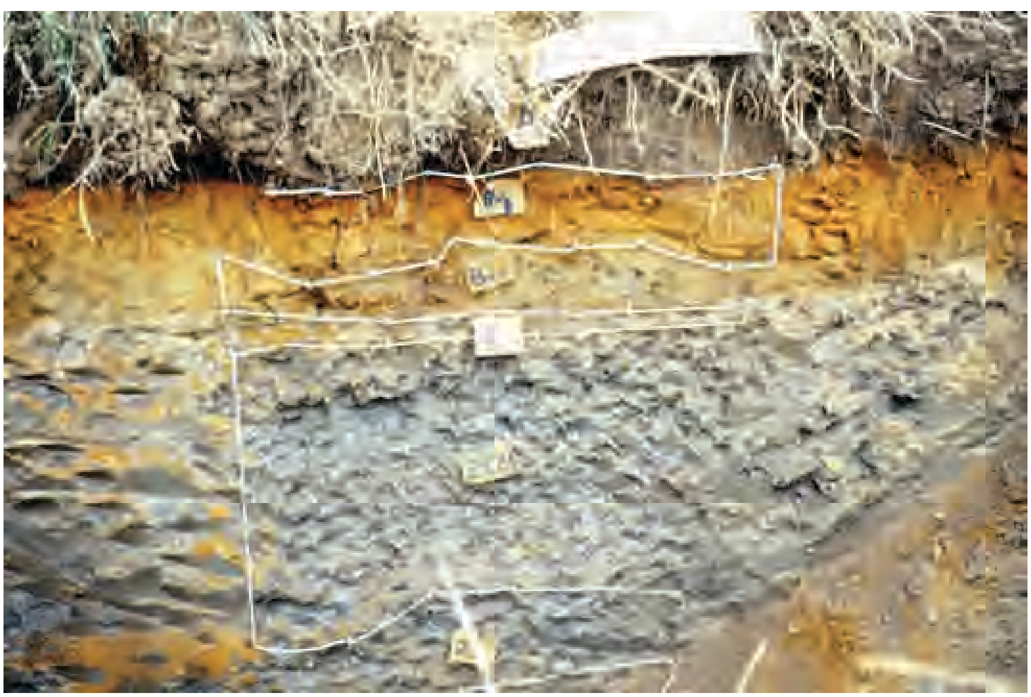


Figure 36.—Soil profile of the Claverack series from a backhoe test pit, in the town of Essex, in a hay field. The contact between the reddish brown, sandy subsoil (Bw horizons) and the gray clayey substratum (2C horizons) is well expressed in this photo.

The B horizon has hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 6 and few to common high chroma mottles. In places the lower part of the B horizon has gray or grayish brown mottles below a depth of 18 inches. Texture ranges from loamy fine sand to sand. Small areas of uncoated sand grains have colors with chroma of 2 and value of 6 or 7. This horizon is structureless or has weak, very fine through medium, subangular blocky structure.

The 2C horizon has hue of 2.5YR to 5Y, value of 3 to 6, and chroma of 2 to 6. Texture ranges from silty clay loam to clay. Some pedons have subhorizons up to 5 inches thick that are silt or silt loam. The horizon is massive or has weak or moderate, medium or thick plate-like divisions as depositional varves. Free carbonates are usually present.

Collamer Series

The Collamer series consists of very deep, moderately well drained soils on lacustrine terraces and lake plains in the Champlain Valley. Collamer soils formed in silty clay sediments deposited in still water. Slopes range from 2 to 8 percent.

Collamer soils are associated on the landscape with Dunkirk, Niagara, Claverack, Pittsfield, Chatfield, and Hollis soils. Dunkirk soils are well drained. Niagara soils are somewhat poorly drained. Claverack soils are sandy over clayey. Pittsfield soils are loamy and are well drained. Chatfield and Hollis soils are loamy, well drained, and moderately deep and shallow to meta-igneous bedrock respectively.

Typical pedon of Collamer silt loam, 2 to 8 percent slopes, in a hay field, in the town of Crown Point, 65 feet east of a point on Sugar Hill Road that is 2,100 feet south of the junction of Sugar Hill Road and Routes 9N and 22; USGS Crown Point 7.5 minute topographic quadrangle; NAD 1927; lat. 43 degrees 56 minutes 40 seconds N. and long. 73 degrees 25 minutes 54 seconds W.

Ap—0 to 11 inches, dark grayish brown (10YR 4/2) silt loam; moderate fine and medium granular structure; friable; many fine and few medium roots; neutral; abrupt smooth boundary.

B/E—11 to 16 inches, 87 percent dark brown (10YR 3/3) (B part) and 13 percent pale brown (10YR 6/3) (E part) silty clay loam; moderate fine and medium subangular blocky structure; friable; common fine roots; common fine and medium tubular pores; nearly continuous thin clay films in pore linings; few fine distinct dark yellowish brown (10YR 4/4) and few fine faint brown (10YR 4/3) soft masses of iron accumulation; neutral; gradual wavy boundary.

Bt—16 to 25 inches, dark brown (10YR 3/3) silty clay loam; moderate fine and medium subangular blocky structure; friable; few fine roots; common fine and few medium and coarse tubular pores; nearly continuous thick clay films on ped faces and pore linings; common fine faint dark yellowish brown (10YR 4/4) soft masses of iron accumulation and common medium faint dark grayish brown (10YR 4/2) and grayish brown (10YR 5/2) iron depletions; neutral; clear wavy boundary.

C1—25 to 35 inches, grayish brown (10YR 5/2) silt loam; weak thin and medium platy structure; friable; 1 percent rock fragments; common fine and medium distinct dark yellowish brown (10YR 4/4) and light olive brown (2.5Y 5/4) soft masses of iron accumulation and few medium distinct very pale brown (10YR 7/3) soft masses of secondary calcium carbonate accumulation; moderately alkaline, strongly effervescent; gradual wavy boundary.

C2—35 to 72 inches, brown (10YR 4/3 & 5/3) silt loam; weak thin and medium platy; firm; 2 percent rock fragments; common fine and medium faint dark yellowish brown (10YR 4/4) soft masses of iron accumulation, and few fine distinct gray (10YR 6/1) iron depletions; moderately alkaline, strongly effervescent.

The thickness of solum ranges from 24 to 52 inches. Bedrock is deeper than 60 inches. Depth to carbonates ranges from 20 to 72 inches. Rock fragments range from

0 to 5 percent throughout; however, in some pedons that are underlain with till, rock fragment content ranges up to 35 percent by volume below a depth of 40 inches. Reaction ranges from strongly acid to neutral in surface layer and upper part of the subsoil, moderately acid to slightly alkaline in the lower part of the subsoil, and is slightly acid to moderately alkaline in the substratum.

The Ap or A horizon has hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 or 3. Texture of the fine-earth fraction is fine sandy loam, very fine sandy loam, or silt loam. It has weak or moderate granular or subangular blocky structure. Consistence is very friable or friable.

In some pedons, an E horizon is present. This horizon has hue of 5YR to 2.5Y, value of 5 or 6, and chroma of 2 to 4. It normally has common or many high chroma redoximorphic features. Texture of the fine-earth fraction ranges from fine sandy loam to silt loam. This horizon is massive, or has weak platy or subangular blocky structure. Consistence ranges from very friable to firm.

The E/B and B/E horizons have E horizon-like material on exteriors of peds and are like the Bt horizon in interior of peds. The B/E horizon has few to many redoximorphic concentrations with chroma of 3 or more.

The Bt horizon has hue of 5YR to 2.5Y, value of 4 or 5, chroma of 3 to 6, above 30 inches and chroma of 2 to 6 below 30 inches. It has few to many, low chroma redoximorphic depletions and high chroma redoximorphic concentrations. Texture of the fine-earth fraction is silt loam or silty clay loam except individual thin subhorizons range from fine sandy loam to silty clay. It has weak to moderate subangular blocky, angular blocky, or prismatic structure.

A BC horizon is present in some pedons. The horizon has hue of 5YR to 2.5Y. It has weak or moderate platy or prismatic structure.

The C horizon has hue of 5YR to 2.5Y, value of 4 or 5, and chroma of 2 to 4. Texture of the fine-earth fraction is silty clay loam to stratified silt and very fine sand.

Some pedons, below a depth of 40 inches, have a 2C horizon with textures of gravelly loam through channery silty clay loam.

Correlation Note: In the CrB map unit has a B horizon that has a color value darker than typical for the range of the Collamer series. This should not significantly affect use and management on a local basis for most purposes.

Colonie Series

The Colonie series consists of very deep, somewhat excessively drained soils on deltas, kame terraces, and beach ridges in the Champlain Valley. Colonie soils formed in stratified, water deposited, sandy sediments, overlying coarser, calcareous sands with some fine gravels. Slopes range from 3 to 25 percent.

Colonie, calcareous substratum soils are associated on the landscape with Factoryville, Dunkirk, Collamer, Hartland, and Howard soils. Factoryville soils lack the calcareous sands in the substratum. Dunkirk and Collamer soils are silty clay, and are well drained and moderately well drained respectively. Hartland soils are silty and well drained.

Typical pedon of Colonie, calcareous substratum, loamy fine sand, in a map unit of Factoryville-Colonie complex, 3 to 8 percent slopes, in an idle hay field, in the town of Crown Point, 70 feet east of a point on Pearl Street that is 6,400 feet southwest of the junction of Pearl Street and County Route 2; USGS Crown Point 7.5 minute topographic quadrangle; NAD 1927; lat. 43 degrees 56 minutes 21 seconds N. and long. 73 degrees 27 minutes 27 seconds W.

Ap—0 to 9 inches, dark brown (10YR 3/3) loamy fine sand; pale brown (10YR 6/3) dry; weak fine granular structure; very friable; many fine and very fine, and few medium roots; 3 percent rock fragments; moderately acid; abrupt smooth boundary.

E1—9 to 14 inches, dark yellowish brown (10YR 4/6) loamy fine sand; weak medium subangular blocky structure; very friable; common fine and very fine, few medium roots; 3 percent rock fragments; moderately acid; clear smooth boundary.

E2—14 to 25 inches, yellowish brown (10YR 5/6) fine sand; weak medium and coarse subangular blocky structure; very friable; common very fine and few fine and medium roots; 3 percent rock fragments; moderately acid; clear wavy boundary.

E and Bt1—25 to 37 inches, yellowish brown (10YR 5/4) fine sand; weak medium and coarse subangular blocky structure; very friable; few very fine and fine roots; very few very thin dark yellowish brown (10YR 4/6) clay films or bridges between sand grains; 2 percent rock fragments; slightly acid; clear wavy boundary.

E and Bt2—37 to 49 inches, light olive brown (2.5Y 5/4) fine sand; weak medium subanglar blocky structure; very friable; few very fine and fine roots; few thin dark yellowish brown (10YR 4/6) clay bridging of sand grains; neutral; abrupt irregular boundary.

2C1—49 to 56 inches, grayish brown (2.5Y 5/2) fine sand; single grain; loose; contains 1/2 to 1 inch strata that are dark yellowish brown (10YR 4/6) fine sand; few very fine roots; moderately alkaline, strongly effervescent; abrupt wavy boundary.

2C2—56 to 61 inches, light olive brown (2.5Y 5/4) fine sand; massive; friable; few very fine roots; neutral; abrupt wavy boundary.

2C3—61 to 72 inches, grayish brown (2.5Y 5/2) fine sand; single grain; loose; contains 1/2 to 1 inch strata that are dark yellowish brown (10YR 4/6) fine sand; few very fine roots; moderately alkaline, strongly effervescent.

The thickness of the solum ranges from 40 to more than 80 inches. The depth to the first lamellae ranges from 14 to 48 inches. Typically, rock fragments are lacking, but some pedons contain up to 5 percent fine gravel throughout the soil. Reaction is very strongly acid to neutral in the solum, and strongly acid to moderately alkaline in the C horizon. Some pedons have carbonates below 40 inches.

The Ap or A horizon has hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 or 4, moist. Dry colors have value of 5 to 7 and chroma of 2 or 3. Texture is fine sand to very fine sandy loam. Structure is weak granular, or it is single grain. Consistence is very friable or loose.

The E horizon has hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 8 in the upper part and 2 to 8 in the lower part. Texture is dominantly fine sand or loamy fine sand with some pedons containing thin very fine sand subhorizons. It is massive or single grain, or has weak granular or subangular blocky structure. Consistence is very friable or loose.

Some pedons have a Bw horizon.

The (E and Bt) horizon has properties similar to the E horizon and contains horizontal lamellae (Bt) that have hue of 5YR to 10YR, value of 3 to 5, and chroma of 3 to 6, and are typically darker colored than the soil in the interlamellar areas. The lamellae are fine sand to fine sandy loam and are friable to firm. In some pedons, some of the lamellae do not have a distinct increase in clay content.

Some pedons may have a BC horizon.

The C horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 6. Some pedons have redoximorphic features below 40 inches. Texture is dominantly fine sand or loamy fine sand; however, some pedons have contrasting layers of finer textured deposits, or coarser deposits ranging to fine gravel, below depths of 48 inches.

Colton Series

The Colton series consists of very deep, excessively drained soils on kame terraces, outwash plains, outwash terraces, and high stream terraces in the Adirondack Upland. Colton soils formed in stratified, water deposited, gravelly sediments. Slopes range from 0 to 60 percent.

Colton soils are associated on the landscape with Adams, Monadnock, Rumney, Burnt Vly, Becket, and Tunbridge soils. Adams soils are dominantly sand. Monadnock soils are loamy over sandy or gravelly, and are well drained. Rumney soils are loamy and are poorly drained. Burnt Vly soils are mucky and are very poorly drained. Becket soils are loamy and well drained. Tunbridge soils are loamy, well drained, and moderately deep to meta-igneous bedrock.

Typical pedon of Colton very gravelly loamy sand, in a map unit of Colton-Adams complex, 3 to 15 percent slopes, in a wooded area, in the town of Chesterfield, 250 feet south of Nesbit Pond in Clear Pond Park, on the edge of a gravel pit; USGS Ausable Forks 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 23 minutes 00 seconds N. and long. 73 degrees 35 minutes 04 seconds W.

Oi—0 to 1 inch; dark yellowish brown (10YR 4/4) slightly decomposed (fibric) plant material; 98 percent unrubbed fiber, 95 percent rubbed fiber; weak medium platy structure; very friable; strongly acid; clear smooth boundary.

Oe—1 to 2 inches; very dark brown (7.5YR 2.5/2) moderately decomposed (hemic) plant material; 80 percent unrubbed fiber, 40 percent rubbed fiber; moderate fine and medium granular; very friable; many fine and medium and common coarse roots; strongly acid; abrupt smooth boundary.

E—2 to 3 inches; grayish brown (10YR 5/2) very gravelly loamy sand; weak fine granular structure; very friable; many fine and medium and common coarse roots; 40 percent gravels, 4 percent cobbles, and 1 percent stones; strongly acid; clear smooth boundary.

Bhs—3 to 6 inches; dark brown (7.5YR 3/3) very gravelly loamy sand; weak fine and medium subangular blocky structure; very friable; many fine and medium and common coarse roots; 40 percent gravels, 4 percent cobbles, and 1 percent stones; strongly acid; clear smooth boundary.

Bs—6 to 13 inches; brown (7.5YR 4/4) very gravelly loamy sand; weak medium subangular blocky structure; very friable; common fine and medium, and few coarse roots ; 40 percent gravels, 4 percent cobbles, and 1 percent stones; strongly acid; clear smooth boundary.

BC—13 to 21 inches; dark yellowish brown (10YR 4/6) very gravelly loamy sand; single grain; loose; common fine and medium and few coarse roots; 40 percent gravels, 4 percent cobbles, and 1 percent stones; moderately acid; clear smooth boundary.

C—21 to 72 inches, dark yellowish brown (10YR 4/4) extremely gravelly coarse sand; single grain; loose; few fine and medium roots; 55 percent gravels, 14 percent cobbles, 1 percent stones; moderately acid.

The thickness of the solum ranges from 18 to 45 inches. Depth to bedrock is greater than 60 inches. Rock fragments, mainly gravel and cobbles, range from 5 to 55 percent in the surface and subsurface layers, from 15 to 55 percent in the subsoil, and from 35 to 70 percent in the C horizon.

Some undisturbed pedons have an O horizon that has hue of 5YR to 10YR or is neutral, value of 2 to 4, and chroma of 0 to 4. It is up to 8 inches thick.

The Ap horizon has hue of 10YR to 5YR, value of 2 to 5, and chroma of 2 to 4. Texture is sand, loamy coarse sand, loamy sand, loamy fine sand, sandy loam or fine sandy loam in the fine-earth fraction. It has granular structure or it is structureless. Reaction is extremely acid to moderately acid unless limed. Some pedons have a thin A horizon with chroma of 0 to 3.

The E horizon has hue of 5YR to 10YR, value of 4 to 7, and chroma of 1 or 2. Texture is coarse sand, sand, loamy coarse sand, loamy sand, loamy fine sand or coarse sandy loam in the fine-earth fraction. Some pedons have thin horizons of fine sandy loam. Reaction is extremely acid to moderately acid.

The Bhs, or Bh, horizon has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 1 to 3. Texture is coarse sand, sand, loamy coarse sand, loamy sand, or loamy fine sand

in the fine-earth fraction. Some pedons have thin horizons of fine sandy loam. It has granular or subangular blocky structure, or it is massive. It is very friable or friable, with or without cemented masses. Reaction is extremely acid to moderately acid.

The Bs horizon has hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 3 to 8. Texture is coarse sand, sand, loamy coarse sand, loamy sand, or loamy fine sand in the fine-earth fraction. Some pedons are coarse sandy loam in the upper part. Some pedons have thin horizons of fine sandy loam. It has granular or subangular blocky structure, or it is massive or single grain. Reaction is extremely acid to moderately acid.

The BC horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 6. Texture is coarse sand, sand, loamy coarse sand, loamy sand, or loamy fine sand in the fine-earth fraction. Reaction is extremely acid to moderately acid.

Some pedons have a CB horizon with properties similar to the BC.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 7, and chroma of 2 to 6. It is composed of gravel, cobbles, or stones with coarse sand, loamy coarse sand, loamy sand, or sand in the interstices and has varying degrees of stratification. Reaction is very strongly acid to slightly acid.

Cornish Series

The Cornish series consists of very deep, somewhat poorly drained soils on flood plains in intermontane valleys of the Adirondack Upland. Cornish soils formed in silty sediments deposited by flood waters. Slopes range from 0 to 2 percent.

Cornish soils are associated on the landscape with Lovewell, Charles, Adams, Depeyster, Podunk, Monadnock, and Tunbridge soils. Lovewell soils are moderately well drained. Charles soils are poorly drained. Adams soils are sandy and are somewhat excessively drained. Depeyster soils are silty and are moderately well drained. Podunk soils are loamy and are moderately well drained. Monadnock soils are loamy over sandy or gravelly and are well drained. Tunbridge soils are loamy, well drained, and moderately deep to meta-igneous bedrock.

Typical pedon of Cornish silt loam, 0 to 2 percent slopes, in the town of Jay, 75 feet south of Clark Road, and 1/10 mile east of house at the end of the road; USGS Ausable Forks 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 24 minutes 16 seconds N. and long. 73 degrees 41 minutes 59 seconds W.

Ap—0 to 12 inches, very dark grayish brown (10YR 3/2) silt loam; light brownish gray (10YR 6/2) dry; moderate fine granular structure; very friable; many fine and very fine roots; slightly acid; abrupt smooth boundary.

Bw—12 to 21 inches, brown (10YR 4/3 & 5/3) silt loam; moderate fine and medium subangular blocky structure; friable; common fine and very fine roots; common fine and very fine tubular pores; less than 1 percent rock fragments; common fine distinct yellowish brown (10YR 5/6) soft masses of iron accumulation, and common coarse faint grayish brown (10YR 5/2) iron depletions; moderately acid; gradual wavy boundary.

C1—21 to 35 inches, dark grayish brown (10YR 4/2) silt loam; massive; friable; few fine and very fine roots; few fine and common very fine tubular pores; less than 1 percent rock fragments; common coarse faint brown (10YR 5/3) and common fine and medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; moderately acid; clear wavy boundary.

C2—35 to 42 inches, dark grayish brown (10YR 4/2) very fine sandy loam; massive; friable; few fine and very fine tubular pores; less than 1 percent rock fragments; common medium distinct brown (7.5YR 4/4) and common coarse faint brown (10YR 5/3) soft masses of iron accumulation, and common fine and medium distinct light brownish gray (10YR 6/2) iron depletions; moderately acid; gradual wavy boundary.

C3—42 to 48 inches, dark yellowish brown (10YR 4/4) loamy sand; single grain; loose; 7 percent rock fragments; few medium distinct light brownish gray (10YR 6/2) iron depletions; moderately acid; abrupt wavy boundary.

C4—48 to 53 inches, brown (10YR 5/3) and light brownish gray (10YR 6/2) silt loam; massive; friable; less than 1 percent rock fragments; many medium and coarse distinct yellowish brown (10YR 5/8) soft masses of iron accumulation; slightly acid; gradual wavy boundary.

C5-—3 to 72 inches, brown (10YR 5/3) and light brownish gray (10YR 6/2) loamy fine sand; massive; very friable; less than 1 percent rock fragments; many medium and coarse distinct yellowish brown (10YR 5/6) and common medium distinct reddish brown (5YR 4/4) soft masses of iron accumulation; slightly acid.

The thickness of the solum ranges from 20 to 48 inches. Depth to bedrock is more than 60 inches. A few pebbles are in some pedons. Redox depletions are between depths of 7 to 16 inches. Reaction ranges from very strongly acid to slightly acid throughout, unless limed, but pedons that are stratified may range to neutral below 40 inches. Some pedons have buried horizons.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 4. Dry value is 6 or 7. Undisturbed areas have an A horizon 1 to 6 inches thick, that has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 4. They are silt loam or very fine sandy loam. They have weak to strong, fine to medium granular structure. Consistence is very friable or friable.

The Bw horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6. Texture is silt loam or very fine sandy loam. It has weak or moderate, fine or medium granular or subangular blocky structure. Some pedons have platy structure. Consistence is very friable or friable.

The BC horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 3 to 6. Some pedons have a BCg horizon below 20 inches with a chroma of 2. Texture is silt loam or very fine sandy loam. It has weak fine or medium granular structure. Consistence is very friable or friable.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 4. Texture is silt loam, very fine sandy loam, or loamy very fine sand. In some pedons below a depth of 40 inches there are strata ranging from silt loam to fine gravel. It is massive or single grain, depending upon texture. Consistence ranges from loose to friable.

Cosad Series

This taxadjunct of the Cosad series consists of very deep, somewhat poorly drained soils on deltas and beach ridges in the Champlain Valley. Cosad soils formed in sandy sediments underlain by clayey lacustrine or marine sediments. Slopes range from 0 to 8 percent.

Cosad soils are associated on the landscape with Claverack, Kingsbury, Covington, Deerfield, Stafford, Amenia, and Farmington soils. Claverack soils are moderately well drained. Kingsbury soils are clayey throughout. Covington soils are clayey throughout and are poorly drained. Deerfield soils are sandy throughout and moderately well drained. Stafford soils are sandy throughout. Amenia soils are loamy and are moderately well drained. Farmington soils are loamy, shallow to limestone bedrock, and well drained.

Typical pedon of Cosad loamy fine sand, 0 to 3 percent slopes, in the town of Essex, 300 feet south of the point on State Route 22 that is located 3/4 miles west of the junction of Route 22 and Lakeshore Road, in an abandoned hay field; USGS Willsboro 15 min quadrangle; NAD 1927; lat. 44 degrees 18 minutes 31 seconds N. and long. 73 degrees 21 minutes 55 seconds W.

Ap—0 to 12 inches, very dark grayish brown (10YR 3/2) loamy fine sand; light brownish gray (10YR 6/2) dry; weak fine and medium granular structure; very friable; many fine and common medium roots; slightly acid; clear wavy boundary.

Bw1—12 to 18 inches, light yellowish brown (10YR 6/4) fine sand; weak fine and medium subangular blocky structure; very friable; common fine and few medium roots; few macropores, 1/4 inch diameter; common fine and medium distinct strong brown (7.5YR 5/6) soft masses of iron accumulation and few fine distinct light gray (2.5Y 7/2) iron depletions; neutral; abrupt wavy boundary.

Bw2—18 to 23 inches, light yellowish brown (2.5Y 6/4) fine sand; weak fine and medium subangular blocky structure; very friable; few fine roots; few macropores; common fine prominent strong brown (7.5YR 4/6) soft masses of iron accumulation and few fine distinct light brownish gray (10YR 6/2) iron depletions; neutral; abrupt wavy boundary.

Bw3—23 to 25 inches, yellowish brown (10YR 5/4) loamy fine sand; weak fine and medium subangular blocky structure; friable; few fine roots; few fine tubular and common fine vesicular pores; many fine and medium distinct brown (7.5YR 4/4) and prominent reddish brown (5YR 4/4) soft masses of iron accumulation; slightly alkaline; abrupt smooth boundary.

2BC—25 to 39 inches, grayish brown (10YR 5/2) clay; weak medium and coarse prismatic structure; firm; few fine roots; common fine vesicular and few fine tubular pores; few thin discontinuous clay films on ped faces and in pore linings; many fine and medium distinct dark brown (7.5YR 4/4) and many fine and medium distinct brown (7.5YR 5/4) soft masses of iron accumulation and few fine prominent gray (5Y 6/1) iron depletions; slightly alkaline; clear irregular boundary.

2C—39 to 72 inches, 50 percent reddish gray (5YR 5/2) and 50 percent gray (10YR 5/1) clay; massive with coarse desiccation cracks; firm; few fine vesicular and tubular pores; common medium prominent yellowish brown (10YR 5/4) soft masses of iron accumulation; moderately alkaline, strongly effervescent.

The thickness of the solum ranges from 18 to 40 inches and usually corresponds to the thickness of the sandy upper deposit. Depth to bedrock is greater than 60 inches. The soil contains few or no rock fragments. Soil reaction ranges from strongly acid to slightly acid in the A horizon, strongly acid to neutral in the upper part of the B horizon, moderately acid to slightly alkaline in the lower part of the B horizon, and from neutral to moderately alkaline in the 2C horizon which is usually calcareous.

The Ap or A horizons have hue of 7.5YR to 2.5Y, value of 2 or 3, 5 or 6 dry, and chroma of 1 or 2, or they are neutral in color. Texture is fine sandy loam, loamy fine sand, loamy sand or sand. They have weak or moderate granular structure and very friable or friable consistence.

The B horizon has hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 4. It has few to common redoximorphic concentrations and depletions. Depletions are chroma 2 or less above a depth of 18 inches. Texture is loamy fine sand to sand. The B horizon is structureless or has weak, very fine to coarse subangular blocky or medium to very thick platy structure.

Some pedons have a 2BC horizon with colors similar to the 2C horizon. Texture is clay loam, silty clay loam, silty clay, or clay. It is massive or has weak coarse or medium prismatic structure.

The 2C horizon has hue of 2.5YR to 5GY, value of 3 to 6, and chroma of 1 to 4. Texture is silty clay loam, silty clay or clay. The 2C horizon is massive, or has weak or moderate medium to very thick plate-like divisions as depositional varves. Below depths of 40 inches thin lamina of silt and very fine sand are common.

Correlation Note: The CuA and CuB map units are taxadjuncts to the Cosad series because the pedon qualifies as having a Cambic horizon in the 2BC horizon. The classification of the taxadjunct is Sandy over clayey, mixed, superactive,

mesic Aquic Eutrudepts. The classification of Cosad is Sandy over clayey, mixed, superactive, nonacid, mesic Aquic Udorthents. This should not significantly affect use and management on a local basis for most purposes.

Couchsachraga Series

The Couchsachraga series consists of very shallow, somewhat excessively drained and excessively drained soils on summits, shoulders, and back slopes of glaciated mountains in the Adirondack High Peaks Area. These soils formed in sandy materials deposited by glacial ice or sandy residuum, and are underlain by meta-igneous bedrock. Slopes range from 15 to 80 percent.

Couchsachraga soils are associated on the landscape with Andic Cryaquods, Esther, Ricker, Santanoni, Skylight, and Wallface soils. Andic Cryaquods soils are loamy, very deep, and somewhat poorly drained. Esther soils are loamy, very deep, and moderately well drained. Santanoni soils are sandy and gravelly, and moderately deep to meta-igneous bedrock. Wallface soils are loamy, moderately deep to meta-igneous bedrock, and well drained. Skylight soils are shallow to meta-igneous bedrock. Ricker soils formed from organic material, are very shallow and shallow to meta-igneous bedrock, and well drained to excessively drained.

Typical pedon of Couchsachraga coarse sand, in a map unit of Ricker-Couchsachraga-Skylight complex, 35 to 80 percent slopes, very rocky, very bouldery, in the town of Newcomb, south-east facing slide areas of Cliff Mountain, 1,300 feet due north of a point on Upper Twin Brook that is 1.4 miles upstream from the junction of upper and Lower Twin Brook, 300 feet up the slide face; USGS Mt. Marcy topographic quadrangle; NAD 1927; lat. 44 degrees 05 minutes 38 seconds N. and long. 73 degrees 58 minutes 46 seconds W.

Oe—0 to 2 inches; dark reddish brown (5YR 3/2) moderately decomposed (hemic) plant material composed of conifer needles, leaves, and twigs; weak fine and medium granular structure; very friable; many very fine and fine, and few medium roots; extremely acid; clear wavy boundary.

Oa—2 to 4 inches; reddish black (2.5YR 2.5/1) highly decomposed (sapric) plant material; 25 percent stripped sand grains; weak fine and medium granular structure; very friable; many very fine and fine, and few medium roots; extremely acid; gradual wavy boundary. (Combined thickness of the O horizons is 2 to 20 inches.)

Bhs—4 to 9 inches; black (5YR 2.5/1) coarse sand; weak fine and medium granular structure; friable; strongly smeary; common very fine and fine and few medium roots; 14 percent gravel; extremely acid; abrupt wavy boundary. (4 to 10 inches thick)

R—9 inches; Marcy anorthosite bedrock.

Depth to bedrock ranges from 4 to 10 inches from the mineral soil surface. Rock fragment content ranges from 0 to 35 percent by volume throughout the solum. Stones and boulders cover from .01 to 15 percent of the surface. Reaction ranges from ultra acid to very strongly acid in the surface and subsurface horizons, and from extremely acid to strongly acid in the subsoil.

The O horizons have hue of 10R to 10YR or are neutral, with value and chroma of 3 or less. It is slightly decomposed (fibric), moderately decomposed (hemic), or highly decomposed (sapric) material. It has weak or moderate, fine or medium granular or subangular blocky structure. Consistence is very friable or friable.

Some pedons have an E horizon that has hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 1 or 2. Texture is loamy fine sand, loamy sand, loamy coarse sand, fine sand, sand, or coarse sand in the fine-earth fraction. It has weak fine or medium granular or subangular blocky structure, or is single grain. Consistence is very friable, friable, or loose.

The Bhs horizons and Bh horizons (where present), have hue of 10R to 7.5YR or, with value and chroma of 3 or less. Texture is loamy fine sand, loamy sand, loamy coarse sand, fine sand, sand, or coarse sand in the fine-earth fraction. The horizons have weak or moderate, fine, medium, or coarse granular or subangular blocky structure, or are single grain. Consistence is very friable, friable, or loose. It is moderately or strongly smeary.

Bedrock is anorthositic gneiss (metamorphosed anorthosite).

Covington Series

The Covington series consists of very deep, poorly drained soils in depressions on lake plains in the Champlain Valley. Covington soils formed in clayey sediments deposited in still water that was fresh or brackish. Slopes range from 0 to 3 percent.

Covington soils are associated on the landscape with Vergennes, Kingsbury, Livingston, Cayuga, Cosad, and Nellis soils. Vergennes soils are moderately well drained. Kingsbury soils are somewhat poorly drained. Livingston soils are very poorly drained. Cayuga soils are clayey over loamy and are moderately well drained. Cosad soils are sandy over clayey and are somewhat poorly drained. Nellis soils are loamy and well drained.

Typical pedon of Covington clay, 0 to 3 percent slopes, next to a hay field, in the town of Willsboro, 1,050 feet east of a point on Willsboro Point Road, that is 2,000 feet north of the junction of Willsboro Point Road and Mouth of River Road; USGS Willsboro 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 22 minutes 42 seconds N. and long. 73 degrees 22 minutes 40 seconds W.

Ap—0 to 9 inches, black (10YR 2/1) clay; moderate medium and fine subangular blocky parting to weak medium and fine granular structure; friable, sticky and very plastic; many very fine and few fine roots; neutral; abrupt smooth boundary.

Btg1—9 to 19 inches, dark gray (10YR 4/1) clay; moderate coarse prismatic parting to moderate coarse and medium angular blocky structure; firm, very sticky and very plastic; common very fine roots; common thick clay films on ped surfaces; common fine distinct yellowish brown (10YR 5/6) and many medium distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation, and few fine black (2.5Y 2.5/1) soft masses of manganese accumulation; neutral; clear wavy boundary.

Btg2—19 to 24 inches, dark gray (10YR 4/1) clay; few light olive brown (2.5Y 5/4) silt and very fine sand coatings on ped faces; weak coarse prismatic parting to moderate coarse and medium angular blocky structure; firm, very sticky and very plastic; few very fine roots; common moderately thick clay films on ped surfaces; few medium distinct dark yellowish brown (10YR 4/4) soft masses of iron accumulation; neutral; clear smooth boundary.

BCg—24 to 36 inches, dark gray (10YR 4/1) clay; common light olive brown (2.5Y 5/4) silt and very fine sand coatings on ped faces; weak thick platy parting to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; few very fine roots; few 15-20 mm reddish brown (5YR 4/3) clay nodules; many fine distinct dark yellowish brown (10YR 4/4) and few medium and fine distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral; clear smooth boundary.

C—36 to 70 inches, dark grayish brown (2.5Y 4/2) clay; fracture surfaces are dark gray (N 4/0); massive with desiccation cracks; firm; very sticky and very plastic; many medium distinct very pale brown (10YR 7/3) secondary CaCo3 accumulations; few fine distinct yellowish brown (10YR 5/6) and many fine faint olive brown (2.5Y 4/4) soft masses of iron accumulation; moderately alkaline, strongly effervescent.

The thickness of the solum ranges from 20 to 40 inches. Depth to the calcareous material ranges from 20 to 60 inches. Depth to contrasting strata or bedrock is more

than 60 inches. Rock fragments range from 0 to 5 percent. Reaction ranges from moderately acid to neutral in the surface layer, moderately acid to slightly alkaline in the subsoil, and moderately acid to moderately alkaline in the substratum.

The Ap horizon has hue of 10YR or 2.5Y, value of 2 to 3 moist and 5.5 or less dry, and chroma of 1 or 2. Texture is clay, silty clay, silty clay loam, or clay loam. Structure is moderate to strong, medium to coarse granular or moderate to strong, very fine to medium subangular blocky. Consistence is friable, firm, plastic, or sticky.

The BA and B horizons have hue of 7.5YR to 5Y, value of 3 to 5, and chroma of 1 or 2. Redoximorphic features of higher chroma range from few to many and distinct to prominent. Texture is clay with thin strata or subhorizons of silty clay. Structure is weak to strong, coarse prismatic that parts to moderate or strong, very fine to coarse angular blocky or it is weak or moderate, thin to thick platy. Consistence is firm, very firm, very plastic, or very sticky.

The C horizon is neutral or has hue of 2.5Y or 5Y, value of 3 to 5, and chroma of 0 to 2. Redoximorphic features with higher chroma range from few to many and distinct to prominent. Texture is clay or silty clay, but silt and silt loam varves alternate with clay varves in some pedons. Structure is weak or moderate, medium or coarse prismatic that parts to weak or moderate, fine to coarse angular blocky or it is massive. Consistence is firm, very firm, very plastic, or very sticky.

Croghan Series

The Croghan series consists of very deep, moderately well drained sandy soils on deltas, outwash plains, outwash terraces, and high stream terraces in the Adirondack Upland. Croghan soils formed in stratified, water deposited, sandy sediments. Slopes range from 0 to 8 percent.

Croghan soils are associated on the landscape with Adams, Naumburg, Searsport, Rumney, Burnt Vly, and Monadnock soils. Adams soils are somewhat excessively drained. Naumburg soils are somewhat poorly drained. Searsport soils are very poorly drained. Rumney soils are loamy and poorly drained. Burnt Vly soils are mucky and very poorly drained. Monadnock soils are loamy over sandy or sandy-skeletal and are well drained.

Typical pedon of Croghan fine sand, 0 to 3 percent slopes, in forested area, in the town of Wilmington, O.54 miles east on Perkins Road from intersection with Hardy-Kilburn Road, then 900 feet south on trail, then 60 feet west in a stand of White Pine; USGS Lake Placid 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 22 minutes 15 seconds N. and long. 73 degrees 47 minutes 22 seconds W.

Oi—0 to 1 inch, slightly decomposed plant material.

A—1 to 3 inches, very dark grayish brown (10YR 3/2) fine sand; weak fine granular structure; very friable; many very fine and fine, and common medium and coarse roots; 2 percent rock fragments; very strongly acid; clear wavy boundary.

E—3 to 5 inches, gray (7.5YR 5/1) fine sand; single grain; loose; many very fine and common fine, medium, and coarse roots; 2 percent rock fragments; strongly acid; abrupt wavy boundary.

Bhs—5 to 8 inches, dark reddish brown (5YR 3/3) fine sand; weak fine and medium subangular blocky structure; friable; 20 percent dark reddish brown (5YR 3/3 & 3/2) very firm and brittle ortstein nodules 1/2 to 2 inches in diameter; common very fine, fine, medium, and few coarse roots; 2 percent rock fragments; strongly acid; clear irregular boundary.

Bs1—8 to 14 inches, brown (7.5YR 4/4) fine sand; weak fine and medium subangular blocky structure; friable; 20 percent dark reddish brown (5YR 3/3 & 3/2) very firm and brittle ortstein nodules 1/2 to 2 inches in diameter; common very fine, fine, medium, and few coarse roots; 2 percent rock fragments; strongly acid; clear wavy boundary.

Bs2—14 to 23 inches, dark yellowish brown (10YR 4/4) fine sand; weak medium subangular blocky structure; very friable; 5 percent dark reddish brown (5YR 3/3 & 3/2) ortstein nodules 1/8 to 1/2 inch in diameter; few very fine, fine, medium, and coarse roots; 2 percent rock fragments; strongly acid; gradual wavy boundary.

BC—23 to 29 inches, yellowish brown (10YR 5/4) sand; single grain and weak medium subangular blocky structure; loose and very friable; few very fine, fine, medium, and coarse roots; 10 percent rock fragments; common coarse distinct strong brown (7.5YR 5/8) masses of iron accumulation, and common medium distinct grayish brown (10YR 5/2) iron depletions; moderately acid; clear wavy boundary.

C1—29 to 42 inches, pale brown (10YR 6/3) sand; single grain; loose; 5 percent rock fragments; common fine prominent strong brown (7.5YR 5/8) masses of iron accumulation, and common medium distinct gray (10YR 6/1) iron depletions; moderately acid; abrupt wavy boundary.

C2—42 to 45 inches, grayish brown (10YR 5/2) loamy fine sand with thin strata of fine sandy loam; massive; very friable; common very fine pores; common medium prominent reddish brown (5YR 4/4) masses of iron accumulation; moderately acid; abrupt wavy boundary.

C3—45 to 72 inches, grayish brown (2.5Y 5/2) sand; single grain; loose; 6 percent rock fragments; common fine prominent yellowish brown (10YR 5/6) masses of iron accumulation; moderately acid.

The mineral solum thickness ranges from 20 to 50 inches. Textures are predominantly sandy but include fine sandy loam within a depth of 10 inches from the mineral soil surface which can include all or part of the A horizon, the E horizon, if present, and the upper part of the B horizon. Depth to bedrock is greater than 60 inches. Redoximorphic features occur within 30 inches of the mineral soil surface. Rock fragments range from 0 to 5 percent by volume in the surface and subsurface, and from 0 to 15 percent in the subsoil and substratum.

The O horizon has hue of 5YR to 10YR or is neutral, with value of 2 to 3 and chroma of 0 to 3. It is slightly to highly decomposed plant material. Reaction ranges from extremely acid to moderately acid.

The A horizon has hue of 5YR to 10YR, value of 2 to 4 and chroma of 1 or 2. Ap horizons include value of 5 and chroma of 3, and are up to 13 inches thick. Texture is fine sandy loam, loamy fine sand, loamy sand, fine sand or sand. Reaction ranges from extremely acid to moderately acid. Some pedons have an A/E horizon.

The E horizon has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 or 2. Texture is fine sandy loam, loamy fine sand, loamy sand, fine sand or sand. Reaction ranges from extremely acid to moderately acid.

The Bhs horizon has hue of 2.5YR to 7.5YR, with value and chroma of 3 or less. Texture is fine sandy loam, loamy fine sand, loamy sand, fine sand or sand. Reaction ranges from very strongly acid to moderately acid.

Some pedons have a Bh horizon that has hue of 5YR to 10YR, value of 2 to 3 and chroma of 1 to 4. The horizon is up to 3 inches thick. Texture and reaction ranges are the same as the Bhs.

The Bs horizon has hue of 2.5YR to 10YR, value of 2.5 to 6, and chroma of 3 to 8. Texture is fine sandy loam, loamy fine sand, loamy sand, fine sand or sand. Reaction ranges from very strongly acid to moderately acid.

The BC horizon, where present, has hue of 7.5YR to 2.5Y, value of 4 to 8, and chroma of 2 to 6. Texture is loamy fine sand, loamy sand, fine sand or sand. Reaction ranges from very strongly acid to moderately acid.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 7, and chroma of 1 to 6. Texture is loamy fine sand, loamy sand, fine sand, sand, or coarse sand. Thin strata of very fine sandy loam or fine sandy loam are present in some pedons below a depth of 40 inches. Reaction ranges from very strongly acid to moderately acid.

Deerfield Series

The Deerfield series consists of very deep, moderately well drained soils on deltas in the Champlain Valley. Deerfield soils formed in stratified, water deposited, sandy sediments. Slopes range from 0 to 8 percent.

Deerfield soils are associated on the landscape with Windsor, Stafford, Gougeville, Claverack, Kingsbury, Howard, and Nellis soils. Windsor soils are excessively drained. Stafford soils are somewhat poorly drained. Gougeville soils are poorly drained. Claverack soils are sandy over clayey. Kingsbury soils are clayey and somewhat poorly drained. Howard soils are gravelly and are well drained to excessively drained. Nellis soils are loamy and are well drained.

Typical pedon of Deerfield loamy sand, 0 to 3 percent slopes, in the town of Chesterfield, 400 feet north on U.S. Route 9 from where it crosses Mud Brook (2 miles south of Keeseville), then 100 feet east of the highway, in a pasture; USGS Willsboro, NY 15 minute quadrangle; NAD 1927; lat. 44 degrees 28 minutes 52 seconds N. and long. 73 degrees 29 minutes 12 seconds W.

Ap—0 to 10 inches, very dark gray (10YR 3/1) loamy sand; pale brown (10YR 6/3) dry; moderate fine and medium granular structure; friable; many fine and very fine roots; moderately acid; abrupt smooth boundary.

Bw1—10 to 15 inches, yellowish brown (10YR 5/6) sand; single grain; loose; few fine and very fine roots; moderately acid; clear smooth boundary.

Bw2—15 to 30 inches, yellowish brown (10YR 5/4) sand; single grain; loose; few medium distinct light gray (10YR 7/2) iron depletions and few medium prominent strong brown (7.5YR 5/8) soft masses of iron accumulation in the lower part; moderately acid; clear smooth boundary.

C—30 to 72 inches, dark grayish brown (10YR 4/2) sand; single grain; loose; moderately acid.

The thickness of the solum ranges from 15 to 40 inches. Gravel, generally fine pebbles, ranges from 0 to 15 percent in the solum and 0 to 20 percent in the substratum. Reaction ranges from very strongly acid to slightly acid unless limed. Iron depletions with chroma of two or less are between depths of 15 and 40 inches from the mineral soil surface.

The Ap horizon has hue of 10YR, value of 2 to 4, and chroma of 1 to 3. Texture is fine sandy loam, sandy loam, loamy fine sand, loamy sand, fine sand, or sand. Undisturbed pedons commonly have an 0 horizon, and a thin sequence of A, E, and Bs, Bhs or Bh horizons, or an AB horizon. The Ap or A horizon has weak or moderate very fine to medium granular structure.

The Bw horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 6. Texture of the upper part of the Bw horizon, within a depth of 10 inches from the soil surface, has the same range as the A horizon. Below 10 inches texture is loamy fine sand, loamy sand, fine sand, sand or coarse sand. Structure is weak, very fine to medium granular or subangular blocky, or is single grain.

The BC horizon, where present, has hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 4. Texture range is the same as the lower part of the Bw horizon. Structure is weak, very fine to medium granular, or is single grain.

The C horizon has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 1 to 4. Texture is loamy fine sand, loamy sand, fine sand, sand or coarse sand. It is commonly single grain but may be very weak or weak granular.

Correlation Note: The DeA and DeB map units have moderate structure in the Ap horizon which is stronger than allowed in the range of the Deerfield series. This should not significantly affect use and management on a local basis for most purposes.

Depeyster Series

The Depeyster series consists of very deep, moderately well drained soils on lacustrine terraces in intermontane valleys of the Adirondack Uplands. Depeyster soils formed in silty clay sediments deposited in still water. Slopes range from 8 to 25 percent.

Depeyster soils are associated on the landscape with Hailesboro, Adams, Champlain, Becket, Tunbridge, Monadnock, and Medomak soils. Hailesboro soils are somewhat poorly drained. Adams and Champlain soils are sandy and are somewhat excessively drained. Becket soils are loamy and well drained. Tunbridge soils are loamy, well drained, and moderately deep to meta-igneous bedrock. Monadnock soils are loamy over sandy or gravelly and are well drained. Medomak soils are silty and are very poorly drained.

Typical pedon of Depeyster silt loam, 15 to 25 percent slope, in a hayfield, town of Jay, about 1,000 feet north of the junction of Springfield Road and Route 9N; USGS Lake Placid 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 20 minutes 26 seconds N. and long. 73 degrees 46 minutes 34 seconds W.

Ap—0 to 4 inches, dark grayish brown (10YR 4/2) silt loam; moderate medium granular structure; friable; many fine and very fine roots; slightly acid; clear smooth boundary.

E—4 to 7 inches, 70 percent grayish brown (10YR 5/2) and 30 percent light brownish gray (10YR 6/2) silt loam; moderate medium subangular blocky structure; friable; common very fine roots; very few very fine tubular pores; neutral; gradual smooth boundary.

Bt/E—7 to 13 inches, 70 percent brown (10YR 4/3) (B part), and 30 percent grayish brown (10YR 5/2) (E part) silt loam; moderate medium subangular blocky structure; friable; common very fine roots; few discontinuous clay films along ped faces; very few very fine tubular pores; neutral; gradual smooth boundary.

Bt1—13 to 18 inches, brown (10YR 4/3) silt loam; friable; few very fine roots; thick continuous brown (7.5YR 4/4) clay films on ped faces and in pores; common very fine tubular and vesicular pores; few medium faint light brownish gray (10YR 6/2) iron depletions in lower part; neutral; gradual smooth boundary.

Bt2—18 to 25 inches, brown (10YR 4/3) silt loam; moderate medium subangular blocky structure; friable; few very fine roots; thick continuous light brownish gray (10YR 6/2) clay films on ped faces and in pores; very few very fine tubular pores; neutral; gradual smooth boundary.

C1—25 to 31 inches, brown (10YR 4/3) silt loam; massive, varved; firm; few very fine roots; pockets of reddish brown (5YR 4/4) silty clay loam; few very fine tubular pores; common medium faint grayish brown (10YR 5/2) iron depletions; slightly alkaline; gradual smooth boundary.

C2—31 to 72 inches, brown (10YR 4/3) silt loam; massive, varved; firm; few very fine tubular pores; many medium faint light brownish gray (10YR 6/2) iron depletions; slightly effervescent, slightly alkaline.

The thickness of solum ranges from 24 to 45 inches. Bedrock is deeper than 60 inches. Depth to carbonates ranges from 25 to 72 inches. Rock fragments range from 0 to 5 percent throughout.

The Ap horizon has hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 or 3. Texture is fine sandy loam, very fine sandy loam, or silt loam. It has weak or moderate granular or subangular blocky structure. Consistence is very friable or friable. Reaction is moderately acid to neutral.

Some pedons have an E horizon that have hue of 5YR to 2.5Y, value of 5 or 6, and chroma of 2 to 4. Texture is fine sandy loam, very fine sandy loam, or silt loam. Reaction is strongly acid to neutral.

The B/E horizon has colors and textures similar to the B and E horizons. The E part (albic material) must constitute 15 percent or more by volume of the horizon.

The Bt horizon has hue of 7.5YR to 2.5Y, value of 4 or 5, chroma of 3 or 4 above 30 inches, and chroma of 2 to 4 below 30 inches. Texture is silt loam or silty clay loam and some pedons have layers which range from fine sandy loam to silty clay. Redoximorphic features range from few to many and are low and high chroma. Reaction is slightly acid or neutral in the upper part and slightly acid to slightly alkaline in the lower part.

Some pedons have a CB horizon that has color, texture, and reaction characteristics that are mixtures of the overlying Bt and underlying C horizon.

The C horizon has hue of 10YR to 5YR, value of 4 or 5, and chroma of 2 to 8. Texture ranges from silty clay loam to stratified silt and very fine sand. Loamy till is at depths of 3.5 to 6 feet in some pedons. Reaction is neutral through moderately alkaline.

Dunkirk Series

The Dunkirk series consists of very deep, well drained soils on lacustrine terraces and lake plains in the Champlain Valley. Dunkirk soils formed in silty clay sediments deposited in still water. Slopes range from 8 to 60 percent.

Dunkirk soils are associated on the landscape with Collamer, Factoryville, Colonie, Chatfield, Hollis, Hartland, and Vergennes soils. Collamer soils are moderately well drained. Factoryville and Colonie soils are sandy and are well drained to somewhat excessively drained. Chatfield and Hollis soils are loamy and are 20 to 40 inches and 10 to 20 inches deep to meta-igneous bedrock respectively. Hartland soils are silty. Vergennes soils are clayey and are moderately well drained.

Typical pedon of Dunkirk silt loam, 8 to 15 percent slopes, in an abandoned hay field, in the town of Crown Point, 1,200 feet due southwest of the junction of Routes 9N and 22 and Sugar Hill Road, USGS Ticonderoga, NY 15 minute topographic quadrangle; NAD 1927; lat. 43 degrees 56 minutes 57 seconds N. and long. 73 degrees 26 minutes 07 seconds W.

Ap—0 to 6 inches, dark brown (10YR 3/3) silt loam; moderate fine and medium granular structure; friable; many fine and very fine and few medium roots; slightly acid; abrupt smooth boundary.

E—6 to 10 inches, pale brown (10YR 6/3) silt loam; moderate fine and medium subangular blocky structure; friable; many fine and very fine and few medium roots; few fine vesicular and tubular pores; common medium faint light yellowish brown (10YR 6/4) stripped sand grains along ped faces; slightly acid; clear smooth boundary.

E/B—10 to 15 inches, brown (10YR 5/3) silt loam; moderate fine and medium subangular blocky structure; friable; common fine and very fine roots; many fine tubular and common fine vesicular pores; few thin discontinuous clay films along root channels and on ped faces; 35 percent brown (10YR 4/3) ped interiors; slightly acid; clear smooth boundary.

B/E—15 to 21 inches, brown (10YR 4/3) silt loam with very pale brown (10YR 7/3) ped faces 1 to 2 mm thick (less than 15 percent E material); strong medium and coarse subangular blocky structure; friable; common fine roots; many fine tubular and common fine vesicular pores; common thin discontinuous clay films on ped faces and in root channels; neutral; clear wavy boundary.

Bt1—21 to 29 inches, brown (10YR 4/3) silty clay loam; strong medium and coarse subangular blocky structure; friable; few fine roots; many fine tubular and common fine vesicular pores; many moderately thick continuous clay films on ped faces and in pore linings; neutral; clear smooth boundary.

Bt2—29 to 35 inches, brown (10YR 4/3) silt loam; moderate thick platy parting to moderate medium subangular blocky structure; friable; few fine roots; many fine tubular and common fine vesicular pores; common thin discontinuous clay films on ped faces and root channels; neutral; clear smooth boundary.

BC—35 to 42 inches, dark yellowish brown (10YR 4/4) silt loam; weak thick platy structure; friable; few fine tubular and vesicular pores; neutral; clear smooth boundary.

C—42 to 72 inches, dark grayish brown (10YR 4/2) silty clay loam; moderate thin and medium platy structure (inherited from varves); firm; few fine tubular and vesicular pores; slightly alkaline, slightly effervescent.

The thickness of the solum ranges from 20 to 48 inches. Depth to carbonates ranges from 20 to 54 inches. Rock fragments, mainly gravel and cobbles, range from none to 5 percent throughout the soil. Depth to bedrock is greater than 60 inches.

The Ap or A horizon has hue of 7.5YR to 2.5Y, value of 3 to 5 and chroma of 2 to 4. Texture is silt loam, very fine sandy loam or fine sandy loam. The horizon is friable or very friable, and reaction ranges from strongly acid to slightly acid, unless limed.

The EB horizon has hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 3 to 5. Texture ranges from silt loam to fine sandy loam. Structure is subangular blocky or platy, and consistence is friable or very friable. Reaction ranges from strongly acid to neutral.

Some pedons have an E horizon with value of 5 to 7 and chroma of 2 or 3. Texture is similar to the EB horizon.

The E/B and B/E horizon have color and texture similar to the respective portion of the E or EB and Bt horizon above and below.

The Bt horizon has hue of 5YR to 2.5Y, value of 3 through 5 and chroma from 2 through 4, with the lowest chroma being inherited from weathered dark shale. Texture is silt loam, very fine sandy loam, or silty clay loam. In some pedons, the Bt horizon has faint redoximorphic features in the lower part. Consistence is friable or firm. Reaction ranges from moderately acid to slightly alkaline.

Some pedons have a BC horizon that is slightly acid to moderately alkaline and has a lower clay content than the overlying Bt horizon.

The C horizon has colors similar to the Bt horizons. Texture ranges from very fine sand or silt to silty clay loam, some pedons having thin strata of finer or coarser texture including sand and gravel below depths of 4 feet. Reaction ranges from slightly acid to moderately alkaline.

Duxbury Series

The Duxbury series consists of very deep, well drained soils on outwash plains, outwash terraces, kame terraces, and high stream terraces in the Adirondack Upland. Duxbury soils formed in stratified, water deposited, loamy sediments underlain by gravelly or sandy sediments. Slopes range from 3 to 15 percent.

Duxbury soils are associated on the landscape with Adams, Becket, Monadnock, Tunbridge, Rumney, and Burnt Vly soils. Adams soils are sandy in the solum and are somewhat excessively drained. Becket soils are loamy throughout and have a dense substratum. Monadnock soils were deposited by glacial ice. Tunbridge soils are 20 to 40 inches deep to meta-igneous bedrock. Rumney soils are loamy throughout and are poorly drained. Burnt Vly soils are mucky and are very poorly drained.

Typical pedon of Duxbury fine sandy loam, 3 to 15 percent slopes, in a wooded area, in the town of North Elba, 3,200 feet east of a point on Heart Lake Rd., that is 2.3 miles south of the junction of Heart Lake Rd and NYS Route 73; USGS Mount Marcy 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees, 12 minutes, 44 seconds N. and long. 73 degrees, 57 minutes, 58 seconds W.

Oe—0 to 2 inches; moderately decomposed leaf, needle, and twig material; many fine roots.

A—2 to 4 inches; black (7.5YR 2.5/1) fine sandy loam; moderate medium granular structure; friable; many fine and very fine roots; extremely acid; clear wavy boundary.

E—4 to 5 inches; light brownish gray (10YR 6/2) fine sandy loam; weak fine granular structure; very friable; many fine and very fine roots; 2 percent rock fragments; very strongly acid; clear broken boundary.

Bhs—5 to 13 inches; dark reddish brown (5YR 3/3) fine sandy loam; moderate medium subangular blocky structure; friable; many fine and very fine roots; 2 percent rock fragments; moderately acid; clear wavy boundary.

Bs—13 to 21 inches; dark brown (7.5YR 3/4) fine sandy loam; moderate medium subangular blocky structure; friable; common fine and very fine roots; 10 percent rock fragments; moderately acid; clear wavy boundary.

2C1—21 to 31 inches; light olive brown (2.5Y 5/4) gravelly fine and medium sand; single grain; loose; few fine roots; 20 percent rock fragments; slightly acid; clear wavy boundary.

2C2—31 to 36 inches; light olive brown (2.5Y 5/4) gravelly coarse sand; single grain; loose; 25 percent rock fragments; slightly acid; clear wavy boundary.

2C3—36 to 72 inches; olive brown (2.5Y 4/4) very gravelly coarse sand; single grain; loose; 35 percent rock fragments; slightly acid.

The thickness of the mineral solum and depth to the 2C horizon range from 16 to 30 inches. Depth to bedrock is more than 60 inches. Rock fragments are mostly gravel and cobbles and typically range from 0 to 20 percent in the mineral solum and from 15 to 70 percent in the substratum, but the weighted average in the particle size control section is less than 35 percent. Some pedons have subhorizons of the substratum that have less than 15 percent rock fragments. Reaction ranges from extremely acid to slightly acid in the upper part of the mineral solum and from very strongly acid to slightly acid in the lower part of the solum and in the substratum.

Some pedons have an A horizon with hue of 5YR, 7.5YR or 10YR, value of 2 to 3, and chroma of 1 to 4. Some pedons have an Ap horizon with hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 2 to 4. The A or Ap horizon is fine sandy loam, very fine sandy loam, or silt loam in the fine-earth fraction.

The E horizon has hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 1 or 2. Texture is fine sandy loam or very fine sandy loam in the fine-earth fraction.

The Bhs horizon is neutral or has hue of 2.5YR to 7.5YR, with value and chroma of 3 or less. Some pedons have a Bh horizon that is neutral or has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 0 to 2. The Bs horizon has hue of 5YR to 10YR, with value or chroma of 4 or more. The Bhs and Bh horizons are silt loam, loam, very fine sandy loam, or fine sandy loam in the fine-earth fraction. The Bs horizon is silt loam, loam, very fine sandy loam, fine sandy loam, or loamy fine sand in the fine-earth fraction.

The BC horizon has hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 3 to 6. Texture range is the same as the Bs horizon.

The 2C horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture is loamy sand, sand, or fine to coarse sand in the fine-earth fraction.

Elmridge Series

The Elmridge series consists of very deep, moderately well drained soils on lake plains and deltas in the Champlain Valley. Elmridge soils formed in loamy sediments underlain by clayey lacustrine or marine sediments. Slopes range from 2 to 8 percent.

Elmridge soils are associated on the landscape with Vergennes, Kingsbury, Claverack, Nellis, Amenia, Chatfield, and Hollis soils. Vergennes soils are clayey

throughout. Kingsbury soils are clayey throughout and are somewhat poorly drained. Claverack soils are sandy over clayey. Nellis soils are loamy throughout and are well drained. Amenia soils are loamy throughout. Chatfield and Hollis soils are loamy, well drained, and are 20 to 40 inches and 10 to 20 inches deep respectively to meta-igneous bedrock.

Typical pedon of Elmridge fine sandy loam, 2 to 8 percent slopes, in a hay field, in the town of Westport, 65 feet south of a point on State Route 9N that is 1,650 feet east of the junction of Route 9N and Fitzgerald Road; USGS Port Henry 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 12 minutes 02 seconds N. and long. 73 degrees 29 minutes 06 seconds W.

Ap—0 to 8 inches, dark brown (10YR 3/3) fine sandy loam; pale brown (10YR 6/3) dry; weak fine and medium granular structure; very friable; many very fine roots; common fine tubular and vesicular pores; 1 percent rock fragments; moderately acid; abrupt smooth boundary.

Bw1—8 to 15 inches, yellowish brown (10YR 5/4) fine sandy loam; weak medium and coarse subangular blocky structure; friable; many very fine roots; common fine tubular and vesicular pores; 1 percent rock fragments; few medium faint brown (10YR 5/3) and few fine and medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; moderately acid; gradual wavy boundary.

Bw2—15 to 25 inches, dark yellowish brown (10YR 4/4) loam; weak fine subangular blocky structure; friable; common very fine roots; common fine and medium tubular pores; common medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation, and common medium distinct grayish brown (10YR 5/2) iron depletions; slightly acid; clear wavy boundary.

2BC—25 to 31 inches, dark brown (10YR 3/3) silty clay loam; weak medium and thick platy parting to weak fine subangular blocky structure; firm; common very fine roots; few fine tubular pores; few fine prominent light gray (10YR 7/2) silt coats on ped faces; many medium distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulations, and many medium distinct gray (10YR 6/1) iron depletions; slightly acid; abrupt wavy boundary.

2C1—31 to 46 inches, dark grayish brown (10YR 4/2) silty clay loam; gray (10YR 5/1) ped faces; massive with moderately thick and very thick plate-like divisions; firm; few very fine roots along desiccation cracks; few fine tubular pores; 1 percent rock fragments; common medium distinct dark yellowish brown (10YR 4/4) and common medium prominent dark yellowish brown (10YR 4/6) soft masses of iron accumulation; few fine distinct black (10YR 2/1) soft masses of manganese accumulation; neutral; clear wavy boundary.

2C2—46 to 72 inches, 60 percent dark grayish brown (10YR 4/2) and 40 percent dark yellowish brown (10YR 4/4) silty clay; massive, varved; firm; few fine tubular pores; 1 percent rock fragments; common fine faint brown (10YR 4/3) soft masses of iron accumulation; few fine distinct black (10YR 2/1) soft masses of manganese accumulation; neutral.

The thickness of the solum and depth to the underlying clayey material range from 18 to 40 inches. Rock fragments, mostly fine gravel, range from 0 to 5 percent by volume in the upper loamy horizons and from 0 to 2 percent in the underlying clayey horizons. Reaction ranges from very strongly acid to neutral in the A horizon, from strongly acid to neutral in the B horizon with at least one subhorizon being moderately acid, slightly acid, or neutral, and from moderately acid to slightly alkaline in the 2C horizon. Depth to carbonates is greater than 40 inches.

The Ap horizon has hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 1 to 3. Dry value is 6 or more. Undisturbed pedons have a thin A horizon with value of 2 or 3 and chroma of 1 to 3. The Ap or A horizon is sandy loam, fine sandy loam, very fine sandy loam, or loam. Structure commonly is weak or moderate granular but includes

weak subangular blocky parting to granular in some pedons and is friable or very friable.

The upper part of the B horizon has hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 3 to 6. The lower part of the B horizon has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 2 to 6. Subhorizons with matrix chroma of 2 are below a depth of 20 inches. The B horizon has iron depletions above a depth of 24 inches. Texture of the non-contrasting Bw horizon is sandy loam, fine sandy loam, or loam, but some pedons have thin strata or lenses of loamy sand, loamy fine sand, or loamy very fine sand. The loamy Bw horizon has weak or moderate granular or subangular blocky structure, or it is massive. Consistence is friable or very friable. Some pedons have a silty clay loam or silty clay 2Bw or 2BC horizon just above the 2C horizon. These contrasting horizons have weak or moderate blocky, platy, or prismatic structure. Consistence is friable or firm.

The 2C horizon commonly has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 2 to 4. The value is 3 in some places in the Champlain Valley of New York. In some pedons the chroma is 1. It typically has redoximorphic features. Texture is silty clay loam, silty clay, or clay. Some pedons have thin lenses or thin coatings of silt, very fine sand, or fine sand on ped surfaces. In some pedons below 40 inches, there are thin to thick lenses of very fine sandy loam or fine sandy loam. The 2C horizon is massive or appears in the form of plates or weak prisms. Consistence is firm or very firm.

Esther Series

Esther soils consist of very deep, moderately well drained soils on back slopes and footslopes of glaciated mountains in the Adirondack High Peaks Area. These soils formed in loamy materials underlain by compact, loamy, very firm lodgment till. Slopes range from 3 to 35 percent.

Esther soils are associated on the landscape with Andic Cryaquods, Couchsachraga, Ricker, Santanoni, Skylight, and Wallface soils. Andic Cryaquods soils are somewhat poorly drained. Couchsachraga soils are sandy, 4 to 10 inches deep to meta-igneous bedrock, and are somewhat excessively drained and excessively drained. Ricker soils are organic, 1 to 20 inches deep to meta-igneous bedrock, and are well drained to excessively drained. Santanoni soils are sandy and gravelly, 20 to 40 inches deep to meta-igneous bedrock and are somewhat excessively drained and excessively drained. Skylight soils are sandy, 10 to 20 inches deep to meta-igneous bedrock, and are somewhat excessively drained and excessively drained. Wallface soils are 20 to 40 inches deep to meta-igneous bedrock and are well drained (fig. 37).

Typical pedon of Esther fine sandy loam, in a map unit of Esther-Wallface complex, 15 to 35 percent slopes, rocky, very bouldery, in a wooded area, in the town of Wilmington, about 11,000 feet up the Whiteface Mountain toll road from the toll booth, then 460 feet due west down slope; USGS Lake Placid 15 minute topographic quadrangle; NAD 1983; lat. 44 degrees, 23 minutes, 06 seconds N. and long. 73 degrees, 54 minutes, 09 seconds W.

Oi—0 to 1 inch; very dark brown (7.5YR 2.5/2) slightly decomposed (fibric) plant material; 95 percent unrubbed fiber, 60 percent rubbed fiber; weak medium granular structure; very friable; many very fine and fine roots; extremely acid; clear smooth boundary.

Oe—1 to 4 inches; black (7.5YR 2.5/1) moderately decomposed (hemic) plant material; 60 percent unrubbed fiber, 12 percent rubbed fiber; weak fine granular structure; very friable; many very fine and fine, and common medium roots; extremely acid; clear wavy boundary.

Oa—4 to 8 inches; black (N 2.5/0) highly decomposed (sapric) plant material; 10 percent unrubbed fiber, 1 percent rubbed fiber, 5 percent fine sand; weak fine and medium granular structure; very friable; common fine and medium, and few

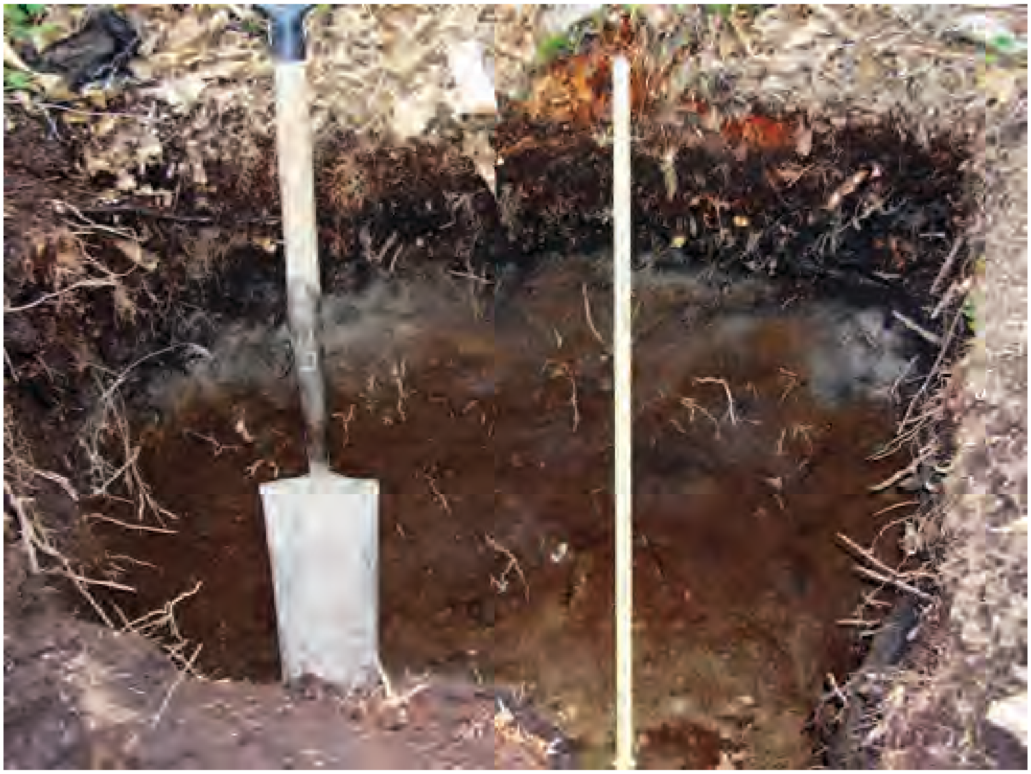


Figure 37.—Soil profile of the Esther series from a hand dug pit, in the town of Wilmington, in a spruce-fir forest. Note the thick layers of organic material over the well expressed gray, leached albic horizon in a soil that has reasonably good drainage. Oxides of iron and aluminum and organic matter are leached out of the albic horizon, and are deposited in the underlying highly acidic, dark reddish brown spodic (subsoil) horizon. Subsoil concentrations of organic matter, iron, and aluminum are very high in these mountainous areas above 3,000 feet in elevation. A very firm, dense, acidic till substratum derived from anorthositic gneiss lies in the bottom of the pit.

coarse roots; extremely acid; abrupt wavy boundary. (Combined thickness of the O horizons is 6 to 20 inches.)

E—8 to 10 inches; gray (5YR 5/1) fine sandy loam; weak fine and medium subangular blocky structure; very friable; common fine and medium roots; 5 percent subrounded gravel; very strongly acid; abrupt wavy boundary (1 to 5 inches thick).

Bhs1—10 to 22 inches; dusky red (2.5YR 3/2) fine sandy loam; weak medium and coarse subangular blocky structure; friable, moderately smeary; common fine and medium roots; 10 percent subrounded gravel and 3 percent subrounded cobbles; very strongly acid; clear wavy boundary.

Bhs2—22 to 28 inches; dark reddish brown (2.5YR 3/3) gravelly fine sandy loam; weak medium and coarse subangular blocky structure; friable, moderately smeary; few fine roots; 15 percent subrounded gravel and 5 percent subrounded cobbles; very strongly acid; clear wavy boundary. (Combined thickness of the Bhs horizons is 10 to 24 inches.)

BC—28 to 33 inches; brown (10YR 4/3) gravelly sandy loam; massive with medium and thick plate-like divisions; firm; 20 percent subrounded gravels and 2 percent subrounded cobbles; few fine distinct gray (7.5YR 5/1) areas of iron depletions, and common fine and medium prominent dark red (2.5YR 3/6) soft masses of iron accumulation in the lower part; strongly acid; clear wavy boundary (0 to 10 inches thick).

Cd—33 to 72 inches; olive brown (2.5Y 4/3) gravelly loamy sand; massive with medium and thick plate-like divisions; very firm and brittle; 21 percent subrounded gravels

and 1 percent subrounded cobbles; common medium and coarse prominent dark reddish brown (2.5YR 3/4) soft masses of iron accumulation on some plate like division surfaces in upper part; strongly acid.

The thickness of the solum and depth to densic materials ranges from 20 to 39 inches from the mineral surface. Rock fragment content ranges from 5 to 35 percent by volume in the mineral solum, and 5 to 50 percent in substratum. Stones and boulders cover from .01 to 15 percent of the surface. Reaction ranges from ultra acid to very strongly acid in the surface and subsurface horizons, and from extremely acid to strongly acid in the subsoil and substratum.

The O horizons have hue of 10R to 10YR or are neutral, with value and chroma of 3 or less. It is slightly decomposed (fibric), moderately decomposed (hemic), or highly decomposed (sapric) material. This horizon has weak or moderate, fine or medium granular or subangular blocky structure. Consistence is very friable or friable.

The A horizon (where present), has hue of 7.5YR to 2.5Y, value of 2 or 3, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, or coarse sandy loam in the fine-earth fraction. It has weak or moderate, fine or medium granular structure. Consistence is very friable or friable.

The E horizon has hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, coarse sandy loam, loamy fine sand or loamy sand in the fine-earth fraction. It has weak fine or medium granular or subangular blocky structure. Consistence is very friable or friable.

The Bhs horizons and Bh horizons (where present), have hue of 10R to 7.5YR, with value and chroma of 3 or less. The Bhs and Bh horizons are loam, fine sandy loam, sandy loam, and coarse sandy loam. Ortstein is present in less than 50 percent of some horizons. They have weak or moderate, fine, medium, or coarse granular or subangular blocky structure, and some pedons have weak platy structure. Consistence is very friable to firm. Consistence is moderately or strongly smeary.

The Bs (where present) horizon has hue of 5YR or 7.5YR, value of 3 to 5, and chroma of 3 or 4. Texture is fine sandy loam, sandy loam or coarse sandy loam in the fine-earth fraction. They have weak or moderate, fine, medium, or coarse subangular blocky structure, and some pedons have weak platy structure. Consistence is very friable to firm.

The BC horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 3 to 6. Texture is fine sandy loam, sandy loam or coarse sandy loam in the fine-earth fraction. It is massive with or without medium or thick plate-like divisions, or it has weak, medium or coarse subangular blocky structure. Consistence is friable or firm.

The Cd horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 3 to 6. Texture is loamy sand, sand, loamy coarse sand, coarse sand, or coarse sandy loam in the fine earth fraction. It is massive with or without medium or thick plate like divisions. Consistence is firm or very firm and brittle.

Factoryville Series

The Factoryville series consists of very deep, well drained soils on deltas, kame terraces, and beach ridges in the Champlain Valley. Factoryville soils formed in stratified, water deposited, sandy sediments. Slopes range from 2 to 60 percent.

Factoryville soils are associated on the landscape with Colonie-calcareous substratum, Windsor, Deerfield, Dunkirk, Niagara, Hartland, Howard soils. Colonie-calcareous substratum and Windsor soils have less than 50 percent fine sand in the profile. Deerfield soils are moderately well drained. Dunkirk is a silty clay soil. Niagara is a silty clay soil and is somewhat poorly drained. Hartland soils are silty. Howard soils are gravelly and are excessively drained (fig. 38).

Typical pedon of Factoryville loamy fine sand, in a map unit of Factoryville-Colonie complex, 3 to 8 percent slopes, in the town of Crown Point, 200 feet southeast of a

Figure 38.—Soil profile of the Factoryville series from a hand dug pit, in the town of Crown Point, in a hay field. Loamy fine sands characterize this soil, and if surface organic matter content can be built up as in this profile, these can be excellent agricultural soils.

point on Vineyard Road, that is .25 miles east of the junction of Vineyard Road and Pearl Street, in a corn field; USGS Crown Point 7.5 minute topographic quadrangle; NAD 1983; lat. 43 degrees 56 minutes 10.2 seconds N. and long. 73 degrees 27 minutes 38.3 seconds W.

Ap—0 to 11 inches, dark brown (10YR 3/3) loamy fine sand; pale brown (10YR 6/3) dry; weak medium and coarse subangular blocky structure parting to weak fine and medium granular structure; very friable; many very fine and common fine roots; 1 percent rock fragments; moderately acid; abrupt smooth boundary.

Bw1—11 to 19 inches, yellowish brown (10YR 5/6) loamy fine sand; single grain; loose; common very fine roots; 1 percent rock fragments; slightly acid; clear smooth boundary.

Bw2—19 to 29 inches, yellowish brown (10YR 5/4) loamy fine sand; single grain; loose; few very fine roots; 3 percent rock fragments; slightly acid; clear wavy boundary.

Bw3—29 to 33 inches, yellowish brown (10YR 5/4) loamy fine sand; single grain; loose; few very fine roots; very few thin clay films bridging sand grains; 1 percent rock fragments; common medium and fine faint brown (7.5YR 4/4) and common medium and fine distinct strong brown (7.5YR 4/6) soft masses of iron accumulation; slightly acid; abrupt wavy boundary.

C1—33 to 65 inches, brown (10YR 4/3) fine sand; single grain; loose; 1 percent rock fragments; neutral; gradual smooth boundary.

C2—65 to 72 inches, brown (10YR 5/3) fine sand; single grain; loose; 1 percent rock fragments; few medium faint dark yellowish brown (10YR 4/4) soft masses of iron accumulation; neutral.

The thickness of the solum ranges from 18 to 40 inches. Texture is dominantly fine sand but may range to sand in some pedons. Pebble content ranges from

0 to 3 percent. Some pedons have carbonates below 40 inches. Redoximorphic concentrations are present in most pedons below 25 inches. Silty or clayey lacustrine layers are present in some pedons below 40 inches.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 1 to 4. The value dry is 6 or more. Uncultivated areas have a thin, 1 to 4 inch thick, A horizon. The A horizons have hue of 10YR, value of 2 or 3, and chroma of 1 or 2. Structure is weak granular or subangular blocky. Texture is fine sand, sand, loamy fine sand, or loamy sand. Reaction ranges from moderately acid to neutral.

Some pedons have a thin E horizon.

The Bw horizon has hue of 10YR or 2.5Y, value of 3 to 7, and chroma of 3 to 8. Texture is fine sand, sand, loamy fine sand, or loamy sand. Structure is weak subangular blocky or single grain, with weak granular in some pedons. Reaction is commonly moderately acid to neutral, but some pedons are strongly acid.

The BC horizon has hue of 10YR or 2.5Y, value of 3 to 7, and chroma of 2 to 6. Structure is massive or single grain, with weak subangular blocky in some pedons. Reaction ranges from moderately acid to neutral.

The C horizon has hue of 10YR or 2.5Y, value of 3 to 7, and chroma of 1 to 6. Texture is fine sand, loamy fine sand, sand, or loamy sand. Structure is massive or single grain. Reaction ranges from moderately acid to neutral.

Farmington Series

The Farmington series consists of shallow, well drained soils on summits, shoulders, and backslopes of scarps, structural benches, and hills in the Champlain Valley. Farmington soils formed in loamy sediments deposited by glacial ice, and are underlain by limestone bedrock. Slopes range from 3 to 60 percent.

Farmington soils are associated on the landscape with Galway, Vergennes, Kingsbury, Niagara, Claverack, Amenia and Windsor soils. Galway soils are 20 to 40 inches deep to limestone bedrock. Vergennes and Kingsbury soils are very deep, clayey, and are moderately well drained and somewhat poorly drained respectively. Niagara soils are very deep, silty clay, and somewhat poorly drained. Claverack soils are very deep, sandy over clayey, and moderately well drained. Amenia soils are very deep, loamy, and moderately well drained. Windsor soils are very deep, sandy, and excessively drained.

Typical pedon of Farmington loam, in a map unit of Farmington-Galway complex, 3 to 15 percent slopes, very rocky, very stony, in a woodlot, in the town of Essex, approximately 300 feet due north of School Road, and 425 feet west-northwest of the water tower; USGS Willsboro 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 18 minutes 24 seconds N. and long. 73 degrees 21 minutes 24 seconds W.

Ap—0 to 6 inches, dark brown (7.5YR 3/2) loam; pale brown (10YR 6/3 dry); weak fine granular structure; very friable; many fine and very fine, common medium and few coarse roots; 10 percent rock fragments; strongly acid; clear smooth boundary.

Bw—6 to 13 inches, brown (7.5YR 4/4) gravelly loam; weak fine and medium subangular blocky structure; very friable; many fine, common medium and very fine, and few coarse roots; 17 percent rock fragments; slightly acid; abrupt smooth boundary.

2R—13 inches, gray massive limestone.

The thickness of the solum and depth to bedrock range from 10 to 20 inches. Rock fragments range from 5 to 35 percent by volume in the solum. Clay content ranges from 10 to 27 percent. The soil reaction ranges from strongly acid to neutral in the A horizon and from moderately acid to slightly alkaline in the B horizon. Free carbonates are in the fine-earth fraction above bedrock in some pedons.

The Ap horizon has hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 1 to 3. Dry color value is 6 or more. Texture is fine sandy loam, loam, or silt loam in the fine-earth fraction. Some pedons may have an A horizon.

The B horizons have hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 6. The color can be mottled with litho chromic ghosts related to the underlying bedrock. Texture is fine sandy loam, very fine sandy loam, loam, or silt loam in the fine earth fraction. Some pedons have redoximorphic accumulations in the lower part of the B horizon. This horizon has weak or moderate, fine or medium subangular blocky or granular structure. Consistence is very friable or friable.

The 2R horizon is dominantly limestone, dolomite, or dolomitic limestone bedrock, but hard shale or sandstone underlies some pedons.

Fernlake Series

The Fernlake series consists of very deep, somewhat excessively drained soils on summits, shoulders, backslopes, and footslopes of glaciated hills and ridges, and on till plains in the Adirondack Upland. Fernlake soils formed in sandy, friable sediments deposited by glacial ice. Slopes range from 3 to 60 percent.

Fernlake soils are associated on the landscape with Adams, Tunbridge, Lyman, Mondadnock, Sunapee, Adirondack, and Tahawus soils. Adams soils have less rock fragments. Tunbridge soils are loamy, well drained, and are 20 to 40 inches deep to meta-igneous bedrock. Lyman soils are loamy, well drained, and are 10 to 20 inches deep to meta-igneous bedrock. Monadnock soils are loamy over sandy or gravelly and are well drained. Sunapee soils are loamy are moderately well drained. Adirondack soils are loamy are somewhat poorly drained. Tahawus soils are very poorly drained (fig. 39).

Typical pedon of Fernlake loamy fine sand, 3 to 8 percent slopes, very bouldery, in a wooded area, in the town of Jay, in a road cut on the east side of Ausable Drive, at a right angle bend, 0.15 mile east of Ridgetop Road; USGS Ausable Forks 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees, 26 minutes, 0 seconds N. and long. 73 degrees, 42 minutes, 8 seconds W.

Oa—0 to 2 inches, black (5YR 2.5/1) highly decomposed litter; weak fine granular structure; very friable; many very fine roots; strongly acid; abrupt wavy boundary.

E—2 to 4 inches, brown (7.5YR 5/2) loamy fine sand; weak fine granular structure; very friable; many fine and very fine roots; 10 percent gravel, 2 percent cobbles; very strongly acid; clear wavy boundary.

Bs—4 to 8 inches, brown (7.5YR 4/4) loamy fine sand; weak medium subangular blocky structure; very friable; common fine and medium roots, few coarse roots; 10 percent gravel, 3 percent cobbles; strongly acid; clear smooth boundary.

BC1—8 to 19 inches, yellowish brown (10YR 5/6) gravelly loamy fine sand; weak medium subangular blocky structure; very friable; many fine and very fine roots, few medium and coarse roots; 15 percent gravel, 3 percent cobbles; very strongly acid; clear smooth boundary.

BC2—19 to 33 inches, brown (10YR 5/3) gravelly loamy fine sand; weak medium subangular blocky structure; very friable; common fine and very fine roots; 10 percent gravel, 5 percent cobbles; very strongly acid; clear wavy boundary.

C1—33 to 41 inches, pale brown (10YR 6/3) gravelly loamy sand; massive with weak very thick and thin plate-like divisions; friable; few fine roots; 10 percent gravel, 5 percent cobbles; strongly acid; clear wavy boundary.

C2—41 to 57 inches, brown (10YR 5/3) cobbly loamy sand; massive; very friable; few fine roots in upper part; 10 percent cobbles, 10 percent gravel; strongly acid; clear wavy boundary.

C3—57 to 72 inches, mixed 50 percent brown (10YR 5/3) and 30 percent very pale brown (10YR 7/3) sand; a few thin lenses of brown (10YR 5/3) fine sand; single grain; loose; 10 percent gravel; strongly acid.

The thickness of the solum ranges from 15 to 40 inches. Depth to bedrock is greater than 60 inches. Rock fragments range from 5 to 30 percent in the solum and from 10 to 40 percent in the substratum. Reaction is extremely acid to strongly acid in the upper part of the solum, very strongly acid to moderately acid in the BC horizon, and strongly acid to slightly acid in the substratum.

Some pedons have thin Oe and/or Oa horizons.

The A horizon has hue of 5YR or 7.5YR, value of 2 to 3, and chroma of 1 or 2. Texture of the fine earth fraction is dominantly loamy sand, but includes loamy fine sand and sandy loam. Structure is weak granular. Consistence is friable or very friable.

The E horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 1 to 3. Texture of the fine earth fraction is dominantly loamy sand, but includes loamy fine sand and fine sand. Structure is weak granular or the horizon is single grain. Consistence is friable or very friable.

The Bs horizon has hue of 5YR to 10YR, value of 4 or 5, and chroma of 3 to 6. Texture of the fine earth fraction is dominantly loamy sand, however thin subhorizons of loamy fine sand or sandy loam are in some pedons. Structure is weak, fine to coarse granular or subangular blocky. Consistence is friable or very friable.

The BC horizon has hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 6. Texture of the fine earth fraction is dominantly loamy sand, but also includes loamy fine sand, sand, or fine sand. Structure is weak, fine or medium subangular blocky, or the horizon is single grain.

The C horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 or 3. Texture of the fine earth fraction is dominantly loamy sand, but also includes loamy fine sand, sand, or fine sand. Some pedons have thin subhorizons of sandy loam below 40 inches. The horizon is massive or single grain. Some pedons have thin layers below 40 inches (being less than 20 inches total thickness), of weak platy structure. Consistence is friable to loose, and may be firm in place.

Figure 39.—Soil profile of the Fernlake series from a borrow pit, in the town of Jay, in a mixed pine and hardwood forest. Note the bright reddish brown spodic subsoil horizon underlying the gray albic horizon. These sandy tills have excellent potential for production of drier site timber species such as Pine, Oak, and Cherry. This soil also has moderate limitations for residential development.

Fluvaquents

Fluvaquents consist of very deep, somewhat poorly drained to very poorly drained soils formed in material recently deposited by streams and rivers. Fluvaquents are on the most actively flooded areas of flood plains along major and secondary streams in the county. Slopes range from 0 to 3 percent. Fluvaquents are in areas of the flood plain immediately adjacent to streams. Scouring, cutting, lateral erosion, changing stream channels and redeposition of sediments during frequent flooding are responsible for the variability in composition and properties of Fluvaquents.

Fluvaquents occur in a complex with the well drained Udifluvents soils, and are mapped in both the frigid and mesic areas of the county. They are commonly near Ondawa, Occum, Podunk, Pootatuck, Lovewell, Cornish, Rumney, Rippowam, Charles, Medomak, and Burnt Vly soils. The frigid Ondawa and mesic Occum soils are well drained. The frigid Podunk and mesic Pootatuck soils are moderately well drained. The frigid Rumney and mesic Rippowam soils are poorly drained. The frigid Burnt Vly soils are organic over sandy and are very poorly drained. The frigid and moderately well drained Lovewell, somewhat poorly drained Cornish, poorly drained Charles, and very poorly drained Medomak soils are silty. Fluvaquents have little or no soil profile development.

Although these soils are highly variable, an example of the loamy phase is provided here: Pedon of Fluvaquents, in a map unit of Fluvaquents-Udifluvents complex, frequently flooded, nearly level, in a wooded area, town of Elizabethtown, Elizabethtown Fish & Game Club Property, 1,535 feet north and slightly east of the junction of the club road and the Elizabethtown-Wadhams road; USGS Elizabethtown, NY 15 minute topographic quadrangle; NAD 1983; lat. 44 degrees 13 minutes 54.9 seconds N. and long. 73 degrees 34 minutes 11.3 seconds W.

A—0 to 5 inches, very dark brown (10YR 2/2) very fine sandy loam; weak fine and medium granular structure; very friable; many fine and very fine roots; slightly acid; clear smooth boundary.

AC—5 to 9 inches, 70 percent very dark grayish brown (10YR 3/2) and 30 percent light olive brown (2.5Y 5/3) fine sandy loam; weak fine granular structure; very friable; many fine and very fine roots; slightly acid; clear smooth boundary.

Ab—9 to 21 inches, very dark grayish brown (10YR 3/2) very fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and few medium roots; few fine distinct gray (2.5Y 5/1) depletions, and few fine prominent yellowish brown (10YR 5/8) soft masses of iron accumulation; slightly acid; clear smooth boundary.

Cg1—21 to 30 inches, dark gray (10YR 4/1) very fine sandy loam; massive; friable; few fine and medium roots; many fine and medium prominent dark reddish brown (5YR 3/4) soft masses of iron accumulation; slightly acid; clear smooth boundary.

Cg2—30 to 42 inches, dark gray (2.5Y 4/1) fine sandy loam; massive; friable; few fine roots; slightly acid; clear smooth boundary.

2Cg3—42 to 72 inches, dark gray (10YR 4/1) very gravelly sand; single grain; loose; 50 percent gravels; neutral.

Generally the surface layer is 3 to 15 inches thick. The depth to bedrock is more than 60 inches.

The surface layer or buried A horizons have hue of 10YR to 5Y or is neutral, value of 2 to 5, and chroma of 1 to 6. Texture is very fine sandy loam to coarse sand, and their gravelly or very gravelly analogs. Rock fragments range from 0 to 70 percent. Reaction is strongly acid to neutral.

The substratum has hue of 10YR to 5PB, value of 3 to 5, and chroma of 1 to 6. Redoximorphic features in the form of iron depletions are present above 20 inches. Texture is very fine sandy loam through coarse sand, and their gravelly or very gravelly

analogs. Structure is massive or single grain. Rock fragments range from 0 to 70 percent. Reaction is strongly acid to neutral.

Correlation Note: Included in the FuA map unit are some areas of frigid soils. This should not affect use and management of this map unit.

Galway Series

The Galway series consists of moderately deep, well drained soils on summits and shoulders of structural benches and hills in the Champlain Valley. Galway soils formed in loamy sediments deposited by glacial ice, and underlain by limestone bedrock. Slopes range from 3 to 15 percent.

Galway soils are associated on the landscape with Farmington, Vergennes, Kingsbury, Niagara, Claverack, Amenia and Windsor soils. Farmington soils are 10 to 20 inches deep to limestone bedrock. Vergennes and Kingsbury soils are very deep, clayey, and are moderately well drained and somewhat poorly drained respectively. Niagara soils are very deep, silty clay, and somewhat poorly drained. Claverack soils are very deep, sandy over clayey, and moderately well drained. Amenia soils are very deep, loamy, and moderately well drained. Windsor soils are very deep, sandy, and excessively drained.

Typical pedon of Galway loam, in a map unit of Farmington-Galway complex, 3 to 15 percent slopes, very rocky, very stony, in the town of Essex, in the hamlet of Essex, 2,200 feet south of the junction of NYS Route 22 and County Route 22J, 300 feet north-east of County Route 22J; USGS Willsboro, NY 15 minute quadrangle; NAD 1927; lat. 44 degrees 18 minutes 16 seconds N. and long. 73 degrees 20 seconds 58 minutes W.

Ap—0 to 5 inches, very dark grayish brown (10YR 3/2) loam; light brownish gray (10YR 6/2) dry; moderate fine and medium granular structure; friable; many fine, and common medium and coarse roots; 5 percent rock fragments; neutral; abrupt smooth boundary.

Bw1—5 to 9 inches, dark brown (10YR 3/3) fine sandy loam; moderate fine and medium granular structure; friable; common fine and medium, and few coarse roots; common fine tubular pores; 7 percent rock fragments; neutral; gradual smooth boundary.

Bw2—9 to 18 inches, brown (10YR 4/3) fine sandy loam; moderate fine and medium subangular blocky structure; friable; common fine and medium, and few coarse roots; common fine tubular and few fine vesicular pores; 7 percent rock fragments; neutral; clear smooth boundary.

C—18 to 35 inches, grayish brown (2.5Y 5/2) gravelly fine sandy loam; common medium prominent white (10YR 8/1) soft masses of secondary calcium carbonate accumulation; massive with moderate thin and medium plate-like divisions; firm; few fine tubular pores; 25 percent rock fragments; moderately alkaline, violent effervescent; abrupt smooth boundary.

2R—35 inches, nearly horizontally bedded limestone bedrock.

The thickness of solum ranges from 18 to 30 inches and depth to carbonates ranges from 14 to 40 inches. Depth to bedrock ranges from 20 to 40 inches. Rock fragments, by volume, range from 0 to 35 percent in the A horizon, 3 to 35 percent in the B horizon, and 5 to 70 percent in the C horizon. The soil is moderately acid to neutral in the A horizon, moderately acid to slightly alkaline in the B horizon, and slightly or moderately alkaline in the C horizon.

The Ap or A horizon has hue of 10YR or 2.5Y, value of 3 or 4 and chroma of 2 or 3. Texture is silt loam or loam in the fine earth fraction. The structure is fine to coarse granular or fine or medium subangular blocky. The consistence is very friable or friable. The A horizon has a thickness of 2 to 5 inches.

The Bw horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 3 to 6. Faint or distinct mottles or redoximorphic concentrations with chroma higher than 2 occur in the lower part of some pedons. Texture of the fine earth fraction is silt loam, loam, or fine sandy loam. It has weak or moderate, fine through coarse, subangular blocky or granular structure. Consistence ranges from very friable to firm.

BC horizon, if present, is similar to the Bw but differs by having free carbonates and chroma as low as 2.

The C horizon has hue of 5YR to 2.5Y, value of 3 to 6 and chroma of 2 to 4. If chroma is 2, the value is 4 or more. Texture ranges from silt loam to sandy loam in the fine earth fraction. Texture is friable or firm. It is calcareous in some part.

The 2R horizon is limestone, dolomitic limestone, or calcareous sandstone bedrock.

Georgia Series

The Georgia series consists of very deep, moderately well drained soils on till plains and on footslopes of glaciated hills and ridges in the Champlain Valley. Georgia soils formed in loamy, friable sediments deposited by glacial ice. Slopes range from 3 to 15 percent.

Georgia soils are associated on the landscape with Pittsfield, Massena, Sun, Chatfield, Hollis and Kingsbury soils. Pittsfield soils are well drained. Massena soils are somewhat poorly drained. Sun soils are poorly drained. Chatfield and Hollis soils are well drained and are 20 to 40 inches and 10 to 20 inches deep to meta-igneous bedrock respectively. Kingsbury soils are clayey and are somewhat poorly drained.

Typical pedon of Georgia loam, 3 to 8 percent slopes, in the town of Essex, 250 feet south of a point on County Route 12, that is 3,450 feet east of the junction of County Route 12 and Spear Road, in a wood lot; USGS Willsboro, NY 15 minute quadrangle; NAD 1927; lat. 44 degrees 18 minutes 22 seconds N. and long. 73 degrees 26 minutes 49 seconds W.

A—0 to 9 inches, very dark grayish brown (10YR 3/2) loam; light brownish gray (10YR 6/2) dry; moderate medium granular structure; very friable; many fine and very fine roots and few coarse roots; 10 percent rock fragments; slightly acid; clear wavy boundary.

Bw1—9 to 15 inches, brown (10YR 4/3) loam; weak medium subangular blocky structure; very friable; common fine and very fine roots and few medium roots; 11 percent rock fragments; few medium faint pale brown (10YR 6/3) and few medium distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation; moderately acid; clear smooth boundary.

Bw2—15 to 20 inches, dark yellowish brown (10YR 4/4) fine sandy loam; moderate medium subangular blocky structure; friable; few fine and very fine roots; 9 percent rock fragments; common fine faint pale brown (10YR 6/3) and common fine distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation; moderately acid; clear smooth boundary.

BC—20 to 30 inches, light olive brown (2.5Y 5/4) fine sandy loam; weak medium subangular blocky structure; friable; 13 percent rock fragments; few fine distinct grayish brown (10YR 5/2) iron depletions, many medium and fine distinct dark yellowish brown (10YR 4/6) and common medium faint brown (10YR 5/3) soft masses of iron accumulation; moderately acid; clear smooth boundary.

C—30 to 72 inches, light olive brown (2.5Y 5/4) gravelly fine sandy loam; massive; friable; 23 percent rock fragments; common medium distinct light brownish gray (2.5Y 6/2) iron depletions, common medium distinct yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/4) soft masses of iron accumulation; moderately acid.

The thickness of the solum ranges from 16 to 32 inches. Depth to bedrock is more than 60 inches. Rock fragments range from 0 to 55 percent in individual horizons and the weighted average in the control section ranges from 5 to 35 percent. Rock fragments consist mainly of weathered limestone, shale, and slate with small amounts of granite. Reaction typically ranges from strongly acid to neutral, but ranges to slightly alkaline in the lower solum and substratum of some pedons. Depth to free carbonates is greater than 40 inches.

The A horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture is loam, or silt loam in the fine-earth fraction.

Some pedons have a BA horizon up to 4 inches thick, with hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 6. Texture is fine sandy loam, loam, or silt loam in the fine-earth fraction

The Bw horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 6. Texture is fine sandy loam, loam, or silt loam in the fine-earth fraction.

Some pedons have a BC horizon with hue of 10YR to 5Y, value of 4 or 5, and chroma of 1 to 4. Texture is fine sandy loam, loam, or silt loam in the fine-earth fraction.

The C horizon is neutral or has hue of 10YR to 5Y, value of 3 to 5, and chroma of 1 to 4. Texture is fine sandy loam, loam, or silt loam in the fine-earth fraction.

Gougeville Series

The Gougeville series consists of very deep, poorly drained soils in nearly level areas on delta perimeters and lake plains. Gougeville soils formed in stratified, water deposited, sandy sediments. Slopes range from 0 to 3 percent.

Gougeville soils are associated on the landscape with Stafford, Cosad, Whallonsburg, and Sun soils. Stafford soils are somewhat poorly drained. Cosad soils have a sandy subsoil over a clay substratum at depths of 20 to 40 inches, and are somewhat poorly drained. Whallonsburg soils are very poorly drained organic soils over clay. Sun soils are loamy.

Typical pedon of Gougeville mucky loamy fine sand, in the town of Plattsburgh, Clinton County NY, about 2,400 feet east of State Route 22 and about 400 feet south of South Junction Road, in a brushy meadow; USGS Plattsburgh, NY 7.5 minute topographic quadrangle; NAD 1927; lat. 44 degrees 37 minutes 59 seconds N. and long. 73 degrees 28 minutes 47 seconds W.

A—0 to 6 inches, very dark brown (10YR 2/2) mucky loamy fine sand; dark grayish brown (10YR 4/2) dry; weak fine granular structure; very friable; many very fine roots and common fine and medium roots; moderately acid; clear smooth boundary.

C1—6 to 12 inches, light brownish gray (10YR 6/2) fine sand; single grain; loose; common very fine roots and few fine roots; many medium and coarse prominent strong brown (7.5YR 4/6) soft masses of iron accumulation (some slightly firm ortstein), common black (N 2/0) stains of manganese oxides, few yellowish brown (10YR 5/6) iron stains along root channels; moderately acid; abrupt smooth boundary.

C2—12 to 25 inches, grayish brown (10YR 5/2) fine sand; single grain; very friable; few very fine roots; many coarse and medium prominent dark yellowish brown (10YR 4/6) and strong brown (7.5YR 4/6) soft masses of iron accumulation, common coarse faint gray (10YR 6/1) iron depletions; moderately acid; gradual smooth boundary.

C3—25 to 40 inches, grayish brown (10YR 5/2) fine sand; single grain; very friable; common coarse and medium prominent yellowish brown (10YR 5/6) and common coarse distinct yellowish brown (10YR 5/4) soft masses of iron accumulation, common coarse and medium faint gray (10YR 6/1) iron depletions; moderately acid; clear smooth boundary.

C4—40 to 58 inches, gray (10YR 5/1) fine sand; single grain; very friable; common coarse prominent light olive brown (2.5Y 5/4) soft masses of iron accumulation; slightly acid; clear smooth boundary.
C5—58 to 72 inches, dark gray (N 4/0) fine sand; single grain; loose; slightly alkaline.

The thickness of the solum ranges from 6 to 25 inches. Depth to bedrock is greater than 60 inches. Rock fragments are typically absent, but may range up to 2 percent by volume in the substratum. Redoximorphic features consisting of Fe/Mn concentrations or clay depletions occur above 20 inches.

The Ap horizon has hue of 10YR, value of 2 or 3 and chroma of 1 or 2. Texture is fine sand, loamy fine sand or fine sandy loam with or without mucky analogues. Some pedons in uncultivated areas have an A horizon with value or chroma one unit lower than an Ap horizon. Reaction ranges from strongly acid to slightly acid.

Some pedons have a Bg horizon with hue of 10YR to 5Y, or neutral, value of 4 to 6, and chroma of 0 to 2. Texture is fine sand or loamy fine sand. Structure is weak subangular blocky or granular. Consistence is very friable. Reaction ranges from moderately acid to slightly alkaline.

The C horizon has hue of 10YR to 5Y, or is neutral, value of 3 to 6, and chroma of 0 to 2. Texture above a depth of 40 inches is fine sand or loamy fine sand. Below 40 inches, some pedons have thin subhorizons of loamy very fine sand, very fine sandy loam and silt loam. The Cg horizon is generally single grain or massive. Consistence is friable, very friable or loose. Reaction ranges from moderately acid to slightly alkaline.

Hailesboro Series

The Hailesboro series consists of very deep, somewhat poorly drained soils on lacustrine terraces in intermontane valleys of the Adirondack Upland. Hailesboro soils formed in silty clay sediments deposited in still water. Slopes range from 3 to 8 percent.

Hailesboro soils are associated on the landscape with Champlain, Depeyster, Becket, Tunbridge, Roundabout, and Wegatchie soils. Champlain soils are sandy and are excessively drained to somewhat excessively drained. Depeyster soils are moderately well drained. Becket soils are loamy and are well drained. Tunbridge soils are loamy, well drained, and are 20 to 40 inches deep to meta-igneous bedrock. Roundabout soils are silty. Wegatchie soils are poorly drained.

Typical Pedon of Hailesboro very fine sandy loam, 3 to 8 percent slopes, in a white pine plantation, town of Jay, 2,200 feet south from intersection of North Jay Road and Hazen Road, then 600 feet west from edge of field into plantation; USGS Ausable Forks, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 23 minutes 32 seconds N. and long. 73 degrees 40 minutes 33 seconds W.

Oi—0 to 1 inch, slightly decomposed needle and twig material.
Ap—1 to 9 inches, very dark grayish brown (10YR 3/2) very fine sandy loam; light brownish gray (10YR 6/2) dry; weak fine granular structure; very friable; many fine and very fine, common medium, and few coarse roots; slightly acid; abrupt smooth boundary.
BE—9 to 17 inches, brown (10YR 5/3) very fine sandy loam; weak fine subangular blocky structure; very friable; common fine and very fine roots; few fine tubular pores; many medium distinct yellowish brown (10YR 5/6) and common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation, and common fine and medium distinct gray (10YR 6/1) iron depletions; slightly acid; clear wavy boundary.
Beg—17 to 23 inches, light brownish gray (2.5Y 6/2) very fine sandy loam; weak medium subangular blocky structure; very friable; few very fine roots; common fine tubular pores; common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation, and common medium faint gray (2.5Y 6/1) iron depletions; slightly acid; abrupt wavy boundary.

Bt1—23 to 30 inches, grayish brown (10YR 5/2) silt loam; moderate medium and coarse subangular blocky structure; firm; few distinct clay films on ped faces and pore linings; common fine and medium tubular and few medium vesicular pores; many coarse faint brown (7.5YR 5/3) and common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation, and common medium faint gray (10YR 6/1) iron depletions; neutral; gradual wavy boundary.

Bt2—30 to 44 inches, grayish brown (10YR 5/2) silty clay loam; weak medium and coarse subangular blocky structure; firm; common distinct clay films on ped faces and pore linings; common fine and medium tubular and few medium vesicular pores; many coarse faint brown (7.5YR 5/3) and common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation, and common medium faint gray (10YR 6/1) iron depletions; neutral; gradual wavy boundary.

C1—44 to 54 inches, grayish brown (2.5Y 5/2) silt loam; weak thin platy structure; friable; common fine tubular pores; common coarse distinct brown (7.5YR 5/3) and few fine prominent yellowish brown (10YR 5/6) masses of iron accumulation, and common medium faint gray (2.5Y 6/1) iron depletions; neutral; gradual wavy boundary.

C2—54 to 72 inches, grayish brown (2.5Y 5/2) very fine sandy loam; massive; friable; common fine tubular pores; few coarse distinct brown (7.5YR 5/3) masses of iron accumulation and few medium faint gray (2.5Y 6/1) iron depletions; slightly alkaline.

The thickness of the solum ranges from 22 to 45 inches. Depth to carbonates range from 30 to 80 inches. Redoximorphic features occur within 20 inches of the mineral soil surface. Depth to bedrock is greater than 60 inches. Rock fragments range from 0 to 5 percent by volume throughout the soil.

The Ap or A horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 to 3. Texture is silt loam or very fine sandy loam in the fine earth fraction. Reaction ranges from moderately acid to neutral.

The BE or BEg horizon, where present, has hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 to 3. Texture is silt loam or very fine sandy loam in the fine earth fraction. Reaction ranges from moderately acid to slightly alkaline.

The Btg or Bt horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 1 or 2. Texture is dominantly silt loam or silty clay loam in the fine earth fraction, with thin subhorizons of very fine sandy loam. Reaction ranges from moderately acid to slightly alkaline.

The BCg or BC horizon, where present, has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 1 to 3. Texture is very fine sandy loam, silt loam or silty clay loam in the fine earth fraction. Reaction ranges from neutral to moderately alkaline.

The Cg or C horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 1 to 3. Texture is very fine sandy loam, silt loam, silty clay loam, or silty clay in the fine earth fraction. Reaction is ranges from neutral to moderately alkaline.

Haplosaprists

Haplosaprists soils consist of very deep, very poorly drained mucky soils in depressions on deltas, outwash plains and outwash terraces in the Adirondack Upland. Haplosaprists soils formed in saturated, decomposing plant material overlying sandy sediments. Slope ranges from 0 to 3 percent.

Haplosaprists soils are associated on the landscape with Searsport, Naumburg, Croghan, Rumney, and Monadnock soils. Searsport soils are sandy throughout. Naumburg soils are sandy throughout and are somewhat poorly drained. Croghan soils are sandy throughout and are moderately well drained. Rumney soils are loamy and are poorly drained. Monadnock soils are loamy over sandy or gravelly, and are well drained.

Typical pedon of Haplosaprists, in a map unit of Searsport-Haplosaprists-Naumburg complex, 0 to 3 percent slopes, in a wooded area, town of North Elba, 1,000 feet south on old Penn Central rail line from Route 86, then 200 feet east into woods; USGS Saranac Lake 15 minute topographic quadrangle; NAD 1983; lat. 44 degrees 18 minutes 07 seconds N. and long. 74 degrees 06 minutes 36 seconds W.

Oa1—0 to 10 inches, very dark brown (10YR 2/2) broken face and rubbed muck (sapric material); 25 percent unrubbed fiber, 5 percent rubbed fiber; weak fine and medium granular structure; very friable; common very fine roots; extremely acid; clear smooth boundary.

Oa2—10 to 20 inches, black (10YR 2/1) broken face and rubbed muck (sapric material); 12 percent unrubbed fiber, less than 1 percent rubbed fiber; weak fine and medium subangular blocky structure; very friable; few very fine roots; extremely acid; clear smooth boundary.

2Cg—20 to 72 inches; gray (5Y 5/1) loamy fine sand; massive; very friable; slightly acid.

The depth to the mineral horizon ranges from 16 to 51 inches. The organic part of the control section has a pH of less than 4.5 in 0.01M calcium chloride.

The surface and subsurface tiers have hue of 10YR to 5YR, or is neutral, value of 2 to 6, and chroma of 0 to 3. The materials are dominantly muck (sapric material), but layers of peat (fibric material) totaling less than 5 inches in thickness and mucky peat (hemic material) totaling less than 10 inches are in some pedons. They are typically massive with some pedons having weak platy, blocky, or granular structure

The 2Cg horizon is neutral or has hue of 10YR to 5Y, value of 4 to 6, and chroma of 0 to 4. Redoximorphic features are faint to prominent, few to many, and fine to coarse, or may be absent. The C horizon is loamy fine sand, loamy sand, fine sand, sand or coarse sand in the fine-earth fraction and some pedons are stratified. Reaction is very strongly acid to slightly acid. Gravel, by volume, ranges from 0 to 45 percent.

Hartland Series

The Hartland series consists of very deep, well drained soils on deltas, lacustrine terraces, and lake plains in the Champlain Valley. Hartland soils formed in water deposited, stratified silt and very fine sand sediments. Slopes range from 2 to 8 percent.

Hartland soils are associated on the landscape with Factoryville, Dunkirk, Vergennes, Kingsbury, Farmington, and Howard soils. Factoryville soils are sandy. Dunkirk soils have higher clay contents. Vergennes and Kingsbury soils are clayey and are moderately well drained and somewhat poorly drained respectively. Farmington soils are loamy, and are 10 to 20 inches deep to limestone bedrock. Howard soils are gravelly and are well drained and somewhat excessively drained.

Typical pedon of Hartland very fine sandy loam, 2 to 8 percent slopes, in an apple orchard, in the town of Crown Point, 300 feet south of a point on Russell Street, that is 5,000 feet west of the junction of Russell Street and Factoryville Road; USGS Crown Point, NY 7.5 minute topographic quadrangle; NAD 1927; lat. 43 degrees 57 minutes 42 seconds N. and long. 73 degrees 27 minutes 42 seconds W.

Ap—0 to 12 inches, dark brown (10YR 3/3) very fine sandy loam; pale brown (10YR 6/3) dry; moderate fine and medium granular structure; very friable; many fine and few medium and coarse roots; slightly acid; abrupt smooth boundary.

Bw1—12 to 19 inches, yellowish brown (10YR 5/4) very fine sandy loam; moderate medium and coarse subangular blocky structure; very friable; common fine and few medium roots; common fine and few medium tubular pores; neutral; clear wavy boundary.

Bw2—19 to 30 inches, brown (10YR 5/3) very fine sandy loam; weak medium and coarse subangular blocky structure; very friable; few fine and medium roots; common fine and few medium tubular pores; neutral; clear smooth boundary.

C1—30 to 45 inches, 60 percent dark yellowish brown (10YR 4/4) and 30 percent yellowish brown (10YR 5/4) silt loam; massive weak medium and thin plate-like divisions; friable; few fine roots; 10 percent pale brown (10YR 6/3) skeletans on plate surfaces; few fine tubular pores; neutral; clear wavy boundary.

C2—45 to 60 inches, yellowish brown (10YR 5/4) very fine sandy loam; massive with weak thick and medium plate-like divisions; very friable; few fine roots; few fine tubular pores; neutral; clear wavy boundary.

C3—60 to 72 inches, 70 percent yellowish brown (10YR 5/4) and 30 percent pale brown (10YR 6/3) fine sandy loam; massive with weak thick and medium plate-like divisions; very friable; many coarse distinct light gray (10YR 7/2) and very pale brown (10YR 7/3) skeletans on plate surfaces; few fine tubular pores; neutral.

The thickness of the solum ranges from 14 to 40 inches. Depth to bedrock is greater than 60 inches. Rock fragments range from 0 to 5 percent. The dominant textures throughout the soil are very fine sandy loam, silt loam, and silt. Fine sandy loam, loamy very fine sand, and very fine sand are allowed in the lower part of the substratum. Thin strata of coarser and finer textured material are common in the lower part of the solum and the substratum of some pedons. Reaction ranges from strongly acid to slightly alkaline.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 or 3. Some pedons have an A horizon. Some pedons have a thin E horizon.

The upper part of the Bw horizon has hue of 7.5YR to 5Y, value of 4 or 5, and chroma of 3 to 6. The lower part of the Bw has hue of 10YR to 5Y, value of 4 to 7, and chroma of 2 to 8. Some pedons have a BC horizon.

The C horizon is neutral or has hue of 10YR to 5Y, value of 3 to 6, and chroma of 2 to 6.

Hermon Series

The Hermon series consists of very deep, somewhat excessively drained soils on footslopes of glaciated hills and ridges, and on till plains in the Adirondack Upland. These soils formed in gravelly, friable sediments deposited by glacial ice. Slopes range from 3 to 60 percent.

Hermon soils are associated on the landscape with Colton, Monadnock, Tahawus, Adirondack, Becket, Skerry, and Tunbridge soils. Colton soils are stratified and excessively drained. Monadnock soils are loamy over sandy or gravelly, and are well drained. Tahawus soils are sandy and very poorly drained. Adirondack soils are loamy and somewhat poorly drained. Becket soils are loamy and well drained. Skerry soils are loamy and moderately well drained. Tunbridge soils are loamy, well drained, and are 20 to 40 inches deep to meta-igneous bedrock.

Typical pedon of Hermon gravelly loamy sand, 35 to 60 percent slopes, very bouldery, in the town of Chesterfield, on west-northwest/east-southeast trending ridge between Black Ash Mt. and Hogback Mt., 100 feet southeast of trail where it passes through “Natural Dam”; USGS Ausable Forks, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 20 minutes 55 seconds N. and long. 73 degrees 38 minutes 49 seconds W.

Oi—0 to 1 inch, slightly decomposed leaf, needle, and twig litter.

Oa—1 to 3 inches, black (10YR 2/1) highly decomposed (sapric) plant material; weak fine granular structure; very friable; many fine and very fine, few medium and coarse roots; 5 percent gravels, 1 percent cobbles, 1 percent stones; extremely acid; abrupt wavy boundary.

E—3 to 5 inches, brown (7.5YR 5/2) gravelly loamy sand; weak fine subangular blocky parting to weak fine and very fine granular structure; very friable; common fine and very fine, few medium roots; 15 percent gravels, 5 percent cobbles, 1 percent stones; very strongly acid; abrupt wavy boundary.

Bhs—5 to 10 inches, dark reddish brown (5YR 3/3) gravelly loamy sand; weak fine and medium granular structure; friable; many fine and very fine, few medium and coarse roots; 20 percent gravels, 5 percent cobbles, 2 percent stones; strongly acid; clear irregular boundary.

Bs—10 to 20 inches, brown (7.5YR 4/4) very gravelly loamy sand; weak fine and medium subangular blocky parting to weak fine granular structure; friable; common fine and very fine, few medium roots; 25 percent gravels, 10 percent cobbles, 3 percent stones; strongly acid; gradual irregular boundary.

C1—20 to 29 inches, dark yellowish brown (10YR 4/4) very gravelly sand; massive parting to weak thin platy structure; friable; few fine and very fine roots; 30 percent gravels, 10 percent cobbles, 5 percent stones; strongly acid; gradual wavy boundary.

C2—29 to 38 inches, brown (10YR 4/3) very gravelly sand; massive; friable; few fine and very fine roots; 35 percent gravels, 10 percent cobbles, 5 percent stones; strongly acid; gradual wavy boundary.

C3—38 to 72 inches, brown (10YR 5/3) very gravelly sand; massive; friable; 35 percent gravels, 10 percent cobbles, 5 percent stones; strongly acid.

The thickness of the solum ranges from 14 to 35 inches. Depth to bedrock is more than 60 inches. Rock fragment content in individual horizons of the particle-size control section ranges from 15 to 70 percent, but the weighted average ranges from 35 to 65 percent. The rock fragments are about 1/3 cobbles and stones and 2/3 gravel. The rock fragment content of the upper 10 inches of the mineral soil ranges from 5 to 50 percent. Stones and boulders cover from 0 to 15 percent of the surface. The surface and subsurface horizons range from extremely acid to strongly acid, the subsoil from extremely acid to moderately acid, and the substratum is strongly acid or moderately acid.

The O horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 3 and chroma of 0 to 2. This horizon has weak very fine or fine granular structure. Consistence is very friable or friable. The horizon has slightly to highly decomposed plant material (sapric, hemic, or fibric).

The Ap horizon, where present, has hue of 10YR, value of 3 or 4 and chroma of 2 or 3. Some pedons have an A horizon that is up to 5 inches thick with hue of 10YR, value of 2 or 3 and chroma of 1 to 3. The A horizon is sandy loam, fine sandy loam, or coarse sandy loam in the fine-earth fraction. It has weak very fine to medium granular structure. Consistence is very friable or friable.

The E horizon has hue of 5YR to 2.5Y, value of 5 to 7, and chroma of 1 or 2. Texture is sandy loam, fine sandy loam, coarse sandy loam, loamy fine sand, or loamy sand in the fine-earth fraction. The horizon has weak very fine to medium granular or subangular blocky structure, or it is weak thin or medium platy. Consistence is very friable or friable.

The Bhs horizon has hue of 2.5YR to 7.5YR, value of 2 to 3 and chroma of 1 to 3. The Bh horizon, where present, has hue of 2.5YR to 7.5YR, value of 2 to 5 and chroma of 2 to 6. The Bs horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8. They are fine sandy loam, sandy loam, coarse sandy loam, loamy sand, loamy coarse sand, sand, or coarse sand in the fine-earth fraction. The B horizons have weak to moderate, very fine to medium granular or subangular blocky structure or are single grain or massive where cemented. Consistence ranges from loose to friable but some pedons have discontinuous cementation.

The BC horizon, where present, has hue of 10YR or 2.5Y, value of 4 to 6 and chroma of 3 to 6. Texture is sandy loam, coarse sandy loam, loamy sand, loamy coarse

sand, sand, or coarse sand in the fine-earth fraction. This horizon has weak very fine to medium granular or platy structure or is single grain or massive. Consistence is loose to firm but some pedons have discontinuous cementation.

The C horizon has hue of 10YR to 5Y, value of 4 to 7 and chroma of 1 to 4. Texture is loamy sand, loamy coarse sand, sand, or coarse sand in the fine-earth fraction. It has weak thin or medium platy structure, or it is single grain or massive. Consistence is loose to firm.

Hogback Series

The Hogback series consists of shallow, well drained soils on summits, shoulders, and backslopes of glaciated mountains, hills and ridges in the Adirondack Upland. Hogback soils formed in loamy sediments deposited by glacial ice and are underlain by massive meta-igneous bedrock. Slopes range from 3 to 60 percent.

Hogback soils are associated on the landscape with Knob Lock, Rawsonville, Mundalite, Worden, and Wilmington soils. Knob Lock soils are organic and are 1 to 20 inches deep to meta-igneous bedrock. Rawsonville soils are 20 to 40 inches deep to meta-igneous bedrock. Mundalite soils are very deep. Worden soils are very deep and somewhat poorly drained. Wilmington soils are very deep and poorly drained (fig. 40).

Typical pedon of Hogback fine sandy loamy, in a map unit of Hogback-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery, in a forested area, in the town of Lewis, approximately 300 feet south off summit of small shoulder ridge south-southeast of Spruce Hill; USGS Ausable Forks, NY 15 minute topographic quadrangle; NAD 1983; lat. 44 degrees 16 minutes 48.7 seconds N. and long. 73 degrees 40 minutes 23.3 seconds W.

Oe—0 to 1 inch, reddish black (2.5YR 2.5/1) moderately decomposed (hemic) plant material; about 50 percent fiber, 15 percent rubbed; weak fine granular structure; very friable; many fine and very fine, and common medium roots; very strongly acid; clear wavy boundary.

Oa—1 to 3 inches, black (N 2.5/) highly decomposed (sapric) plant material; about 20 percent fiber, 5 percent rubbed; weak fine granular structure; very friable; many fine and very fine, and common medium roots; very strongly acid; abrupt wavy boundary.

E—3 to 4 inches, gray (5YR 5/1) fine sandy loam; weak fine granular structure; very friable; many fine and very fine, and common medium roots; 5 percent rock fragments; very strongly acid; clear wavy boundary.

Bhs1—4 to 6 inches, dark reddish brown (5YR 2.5/2) fine sandy loam; weak fine and medium subangular blocky structure; friable, moderately smeary; many fine and very fine, and common medium roots; 5 percent rock fragments; strongly acid; clear wavy boundary.

Bhs2—6 to 14 inches, dark reddish brown (5YR 3/3) fine sandy loam; weak medium subangular blocky structure; friable, weakly smeary; few fine pores; common fine and very fine roots; 5 percent rock fragments; strongly acid; abrupt wavy boundary.

R—14 inches, metaanorthosite bedrock.

The thickness of the solum and depth to bedrock range from 10 to 20 inches. Reaction typically ranges from extremely acid to strongly acid throughout the soil, but some pedons are moderately acid just above the bedrock. Rock fragments are mostly gravel, channers or cobbles and range from 5 to 34 percent throughout the mineral soil. The spodic horizon is 4 to 18 inches thick.

The O horizon has hue of 2.5YR to 7.5YR or it is neutral, value of 2, 2.5, or 3, and chroma of 1. This horizon has plant material from slightly decomposed to highly decomposed.

Figure 40.—Soil profile of the Hogback series from a hand dug pit, in the town of Lewis, in a mixed spruce, fir, and hardwood forest. In this profile, the dark reddish brown spodic subsoil, lying below a thin gray albic horizon, continues to the bedrock contact at the knife point.

The A horizon, where present, has hue of 5YR to 10YR, value of 2, 2.5, or 3, and chroma of 1 or 2. Texture is fine sandy loam, very fine sandy loam or loam in the fine-earth fraction. The horizon is 0 to 7 inches thick.

The E horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 1 or 2. Texture is loamy coarse sand, loamy sand, loamy fine sand, sandy loam, fine sandy loam, very fine sandy loam or loam in the fine-earth fraction.

The Bhs horizon has hue of 2.5YR to 7.5YR, with value and chroma of 3 or less. Some pedons have Bh horizons that have hue of 2.5YR to 10YR or are neutral and have value and chroma of 2.5 or less. Some pedons have a Bs horizon with hue of 5YR to 10YR, with value of 3 to 5 and chroma of 4 to 6. The B horizon is coarse sandy loam, sandy loam, fine sandy loam, very fine sandy loam or loam in the fine-earth fraction. B horizons range from non-smeary to moderately smeary.

Some pedons have a BC horizon that has hue of 2.5Y, value of 4 or 5 and chroma of 4.

Bedrock is slightly weathered schist, gneiss, phyllite, granite, or anorthosite.

Hollis Series

The Hollis series consists of shallow, well drained soils on summits, shoulders, and backslopes of hills and ridges in the Champlain Valley. Hollis soils formed in loamy sediments deposited by glacial ice, and are underlain by massive meta-igneous bedrock. Slopes range from 3 to 60 percent.

Hollis soils are associated on the landscape with Chatfield, Charlton, Pittsfield, Vergennes, Kingsbury, Windsor, and Collamer soils. Chatfield soils are 20 to 40 inches deep to meta-igneous bedrock. Charlton and Pittsfield soils are very deep.

Vergennes and Kingsbury soils are very deep, clayey, and are moderately well drained and somewhat poorly drained respectively. Windsor soils are very deep, sandy, and excessively drained. Collamer soils are very deep, silty clay, and moderately well drained.

Typical pedon of Hollis loam, in a map unit of Chatfield-Hollis complex, 8 to 15 percent slopes, very rocky, very stony, in the Town of Westport, 30 feet east of a point on Geismer Road that is 1,000 feet north of the junction of the Geismer Road and the Elizabethtown-Wadhams Road, in a forested area; USGS Port Henry, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 13 minutes 58 seconds N. and long. 73 degrees 29 minutes 37 seconds W.

Oi—0 to 2 inches, dark brown (10YR 3/3) slightly decomposed (fibric) plant material; weak medium granular structure; very friable; many fine and medium roots; very strongly acid; abrupt smooth boundary.

A—2 to 6 inches, dark brown (10YR 3/3) loam; weak fine and medium granular structure; very friable; many fine and medium roots; 5 percent rock fragments; strongly acid; abrupt smooth boundary.

Bw—6 to 13 inches, yellowish brown (10YR 5/8) gravelly fine sandy loam; weak fine and medium subangular blocky structure; very friable; many fine and medium roots; 25 percent rock fragments; strongly acid; abrupt smooth boundary.

R—13 inches, meta-igneous bedrock.

The thickness of the solum and depth to bedrock range from 10 to 20 inches. Rock fragments commonly range from 5 to 35 percent by volume but some pedons have less than 5 percent rock fragments. The fragments are mostly subrounded gravel except where the surface is stony. The soil has 20 percent or more silt in the particle-size control section. Unless limed, reaction ranges from extremely acid to moderately acid in the organic horizons and very strongly acid to moderately acid in the mineral horizons.

The O horizon ranges from slightly decomposed plant material to highly decomposed plant material.

The A horizon has hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 1 to 3. Texture is sandy loam, fine sandy loam, or loam in the fine-earth fraction. Consistence is friable or very friable.

Some pedons have a BA horizon.

The Bw horizon has hue of 7.5YR to 2.5Y, value of 4 or 5, and chroma of 4 to 8. Texture is sandy loam, fine sandy loam, or loam in the fine-earth fraction. The Bw horizon has weak granular or weak to moderate subangular blocky structure. Consistence is friable or very friable.

Some pedons have a thin BC or C horizon with color like the Bw horizon, except it includes hue of 5Y. Texture, structure, and consistence are similar to the Bw horizon.

The R horizon is dominantly schist, granite, or gneiss bedrock. In places, this horizon is massive, but it dominantly has vertical and horizontal fractures in the upper 12 to 30 inches, but lacks significant displacement below the upper few inches.

Howard Series

The Howard series consists of very deep, well drained soils on kame terraces, beach ridges, and outwash fans in the Champlain Valley. Howard soils formed in stratified, water deposited, gravelly sediments, and are sometimes underlain by firm, loamy, calcareous basal till especially on beach ridge positions. Slopes range from 2 to 25 percent.

Howard soils are associated on the landscape with Nellis, Amenia, Bombay, Claverack, Kingsbury, Dunkirk, and Farmington soils. Nellis soils are loamy and are well drained. Amenia and Bombay soils are loamy and moderately well drained.

Claverack soils are sandy over clayey and are moderately well drained. Kingsbury soils are clayey and somewhat poorly drained. Dunkirk soils are silty clay and well drained. Farmington soils are loamy, 10 to 20 inches deep to limestone bedrock, and are well drained.

Typical pedon of Howard very cobbly loam, 15 to 25 percent slopes, in the town of Ticonderoga, 850 feet southeast of the junction of Vineyard Road and Burm Baughn Road, on the edge of a gravel pit; USGS Crown Point, NY 7.5 minute topographic quadrangle; NAD 1927; lat. 43 degrees 54 minutes 22 seconds N. and long. 73 degrees 26 minutes 40 seconds W.

Oe—0 to 1 inch, very dark gray (10YR 3/1) moderately decomposed (hemic) plant material; weak fine granular structure; very friable; many fine roots; moderately acid; clear smooth boundary.

A—1 to 4 inches, very dark grayish brown (10YR 3/2) very cobbly loam; light brownish gray (10YR 6/2 dry); moderate fine and medium granular structure; very friable; many fine, and few medium and coarse roots; 35 percent rock fragments; slightly acid; clear wavy smooth boundary.

E—4 to 11 inches, yellowish brown (10YR 5/4) cobbly loam; very pale brown (10YR 7/3) dry; weak thin and medium platy parting to weak fine granular structure; very friable; common fine, and few medium and coarse roots; few medium and many fine pores; 30 percent rock fragments; neutral; gradual wavy boundary.

B/E-—11 to 15 inches, 90 percent dark brown (10YR 3/3) (B part) and 10 percent brown (10YR 5/3) (E part) very cobbly loam; E part is very pale brown (10YR 7/3) dry; weak fine and medium subangular blocky structure; very friable; common fine, and few medium and coarse roots; common fine pores; common faint clay linings in pores, and few faint clay bridges of pebbles and sand grains; 40 percent rock fragments; neutral; gradual irregular boundary.

Bt—15 to 22 inches, dark brown (10YR 3/3) very cobbly loam; weak medium and fine subangular blocky structure; very friable, slightly sticky and slightly plastic; common fine and few medium roots; common fine pores; thin discontinuous clay films on ped surfaces, distinct continuous clay linings in pores, many clay bridges of small pebbles and sand grains, and patchy clay films on underside of some rock fragments; 45 percent rock fragments; neutral; clear irregular boundary.

2C1—22 to 35 inches, brown (10YR 4/3) extremely cobbly loamy sand; single grain; loose; few fine roots; 60 percent rock fragments; moderately alkaline, strongly effervescent; gradual wavy boundary.

2C2—35 to 72 inches, dark grayish brown (10YR 4/2) extremely cobbly loamy sand; single grain; loose; 70 percent rock fragments; moderately alkaline, strongly effervescent.

The thickness of the solum and depth to carbonates range from 22 to 60 inches. Bedrock is at depths greater than 60 inches. Rock fragments, mainly gravel and cobbles, range from 5 to 35 percent by volume in the surface layer, from 15 to 55 percent in the upper part of the subsoil, from 35 to 60 percent in the lower part of the subsoil, and from 45 to 70 percent in the substratum. The soil ranges from strongly acid to neutral in the solum and neutral to moderately alkaline in the substratum.

The Ap horizons have hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 or 3. Texture ranges from sandy loam to silt loam in the fine-earth fraction. They have weak or moderate, fine or medium granular structure and very friable or friable consistence. Some pedons have an A horizon up to 6 inches thick.

The E horizons have hue of 5YR to 10YR, value of 4 to 6, and chroma of 2 to 4. Texture ranges from sandy loam to silt loam in the fine-earth fraction. They have weak, fine or medium granular, blocky, or platy structure, or the material is massive. Consistence is very friable, friable or firm. In some pedons, the E horizon is replaced by a BE horizon with chroma of 4 or 6. Some pedons have an EB horizon.

The E/B and B/E horizons are transitional from the E to Bt horizons in color and texture. Structure is weak to moderate, fine or medium granular, subangular blocky or platy, and consistence is very friable or friable.

The Bt horizons have hue of 5YR to 10YR, value of 2 to 5, and chroma of 3 or 4. Texture is sandy loam, fine sandy loam, loam, silt loam, clay loam, or sandy clay loam in the fine earth fraction. They have weak or moderate, fine to coarse, angular or subangular blocky structure, and have very friable to firm consistence.

The 2C horizon has hue of 2.5YR to 5Y, value of 3 to 6, and chroma of 2 to 4. Texture is coarse sand, sand, loamy sand or loamy fine sand in the fine-earth fraction and is most commonly stratified. In some pedons a C1 or BC horizon up to 12 inches thick may lack free carbonates. The C horizon has textures of sandy loam or fine sandy loam in the fine-earth fraction.

Some pedons have a loamy 3C horizon that has hue of 7.5YR to 5Y, value of 4 or 5, and chroma of 1 to 4. Texture is silt loam, loam, very fine sandy loam or fine sandy loam in the fine earth fraction. Structure is massive with or without plate-like divisions. Consistence is firm or very firm. Reaction is slightly alkaline through strongly alkaline.

Correlation Note: The HlB, HlC, and HmB map units have textures below 40 inches that are finer than typical for the range of the Howard series. This should not significantly affect use and management on a local basis for most purposes.

Kalurah Series

The Kalurah Series consists of very deep, moderately well drained soils on side slopes and footslopes of glaciated hills and ridges, and on till plains in the eastern foothills of the Adirondack High Peaks Region. Kalurah soils formed in loamy sediments underlain by firm, loamy, calcareous lodgment till. Slopes range from 3 to 15 percent.

Kalurah soils are associated on the landscape with Pyrites, Nehasne, Malone, Typic Endoaquolls, Wonsqueak, Tunbridge, and Lyman soils. Pyrites soils are well drained. Nehasne soils are 20 to 40 inches deep over marble bedrock. Malone soils are somewhat poorly drained. Typic Endoaquolls soils are poorly drained. Wonsqueak soils are mucky and are very poorly drained. Tunbridge soils are well drained, more acid and are 20 to 40 inches deep to meta-igneous bedrock. Lyman soils are well drained, more acid and are 10 to 20 inches deep to meta-igneous bedrock.

Typical pedon of Kalurah silt loam, 3 to 8 percent slopes, in an idle area near a sawmill, town of Moriah, about 1,300 feet south of the West Moriah Road-South Moriah Road intersection and about 200 feet west of South Moriah Rd; USGS Elizabethtown 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 02 minutes 33 seconds N. and long. 73 degrees 30 minutes 21 seconds W.

Ap—0 to 9 inches, very dark grayish brown (10YR 3/2) silt loam; pale brown (10YR 6/3) dry; moderate fine granular structure; very friable; common medium and coarse roots; many fine roots; 10 percent rock fragments; moderately acid; clear wavy boundary.

Bw1—9 to 13 inches, dark yellowish brown (10YR 4/4) gravelly loam; weak medium subangular blocky structure; very friable; common fine roots and few medium roots; 15 percent rock fragments; slightly acid; gradual irregular boundary.

Bw2—13 to 22 inches, brown (10YR 4/3) gravelly loam; weak medium and fine subangular blocky structure; very friable; common fine roots and few medium roots; 15 percent rock fragments; slightly acid; clear wavy boundary.

BC—22 to 32 inches, brown (10YR 5/3) gravelly fine sandy loam; weak medium subangular blocky parting to weak thin platy structure; some stripped sand grains evident; friable; few fine, medium and coarse roots; common fine vesicular and tubular pores; 20 percent rock fragments; common medium distinct yellowish

brown (10YR 5/6) masses of iron accumulation, and few fine faint light brownish gray (10YR 6/2) and grayish brown (10YR 5/2) depletions; slightly acid; clear wavy boundary.

C1—32 to 47 inches, dark grayish brown (10YR 4/2) and brown (10YR 4/3) gravelly fine sandy loam; massive with strong thin plate like divisions; firm; few fine roots; 20 percent rock fragments; common fine and medium distinct yellowish brown (10YR 5/6) masses of iron accumulation, and common fine and medium distinct light brownish gray (2.5Y 6/2) depletions; neutral; gradual wavy boundary.

C2—47 to 72 inches, brown (10YR 5/3) gravelly sandy loam; massive with moderate thin and medium plate like divisions; friable; 25 percent rock fragments; few medium faint light brownish gray (2.5Y 6/2) iron depletions, and few medium faint dark yellowish brown (10YR 4/4) masses of iron accumulation; neutral.

The thickness of the solum ranges from 30 to 50 inches. Depth to carbonates is greater than 40 inches. Depth to bedrock is greater than 60 inches. Rock fragments, mostly gravel, range from 5 to 35 percent in the solum and from 5 to 50 percent in the C horizon.

The Ap horizon has hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 2 or 3. Texture of the fine-earth fraction is commonly fine sandy loam and less commonly loam or silt loam. Reaction ranges from moderately acid to neutral.

The Bw horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 2 to 6, with chroma of 2 matrix or faces of peds restricted to depths greater than 20 inches. A portion of the Bw or BC above a depth of 24 inches has redoximorphic depletions with chroma of 2 or less. Texture of the fine-earth fraction is commonly fine sandy loam and less commonly sandy loam, loam or silt loam. Reaction is slightly acid or neutral. Some pedons have a BC horizon.

The C horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 6. Texture of the fine-earth fraction is fine sandy loam, sandy loam, or loam. Some pedons have thin layers of loamy sand. Below 60 inches, some pedons have a silt loam texture. Consistence is friable or firm. Reaction ranges from neutral to moderately alkaline.

Kingsbury Series

The Kingsbury series consists of very deep, somewhat poorly drained soils on lake plains in the Champlain Valley. Kingsbury soils formed in clayey sediments deposited in still water that was fresh or brackish. Slopes range from 0 to 8 percent.

Kingsbury soils are associated on the landscape with Vergennes, Covington, Livingston, Cayuga, Amenia, Windsor, and Farmington soils. Vergennes soils are moderately well drained. Covington soils are poorly drained. Livingston soils are very poorly drained. Cayuga soils are clayey over loamy and are moderately well drained. Amenia soils are loamy and moderately well drained. Windsor soils are sandy and excessively drained. Farmington soils are loamy, 10 to 20 inches deep to limestone bedrock, and are well drained (fig. 41).

Typical pedon of Kingsbury silty clay loam, 0 to 3 percent slopes, in a hay field, in the town of Crown Point, .3 miles east of junction of Burdick Road and Route 9N, and .2 miles north of Burdick Road; USGS Crown Point 7.5 minute topographic quadrangle; NAD 1927; lat. 43 degrees 59 minutes 00 seconds N. and long. 73 degrees 26 minutes 32 seconds W.

Ap—0 to 9 inches, dark grayish brown (10YR 4/2) silty clay loam; light brownish gray (10YR 6/2) dry; moderate fine and medium granular structure; friable; slightly sticky and plastic; many fine and few medium roots; neutral; abrupt smooth boundary.

Bt1—9 to 14 inches, brown (10YR 4/3) clay; dark grayish brown (2.5Y 4/2) ped faces; moderate medium subangular blocky structure; firm; sticky and plastic; common

Figure 41.—Soil profile of the Kingsbury series from a backhoe test pit, in the town of Crown Point, in a hay field. Note the mottled appearance of this very clayey soil. The blue-gray colors, or "redoximorphic depletions" are formed from seasonal saturation, and reduction and translocation of iron.

fine and very fine roots; many fine vesicular and common fine tubular pores; thin discontinuous clay films on ped surfaces and pore linings; few fine faint dark yellowish brown (10YR 4/4) soft masses of iron accumulation; neutral; clear wavy boundary.

Bt2—14 to 21 inches, grayish brown (10YR 5/2) clay; moderate fine and very fine angular blocky structure; firm; sticky and plastic; few very fine roots; many fine vesicular and common fine tubular pores; moderately thick continuous clay films on ped surfaces; many fine and medium distinct dark yellowish brown (10YR 4/4 and 4/6) and few fine prominent strong brown (7.5YR 4/6) soft masses of iron accumulation; neutral; clear wavy boundary.

CB—21 to 34 inches, grayish brown (10YR 5/2) silty clay; weak coarse prismatic parting to weak fine and medium subangular blocky structure; firm; sticky and plastic; few fine roots along prism faces; 1 percent pebbles; common faint light gray (10YR 7/2) carbonate coats on prism faces and few firm carbonate nodules; many fine and medium faint dark yellowish brown (10YR 4/4) and common fine distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; moderately alkaline, strongly effervescent; clear wavy boundary.

C1-—34 to 65 inches, brown (10YR 4/3) clay; gray (10YR 5/1) desiccation crack surfaces; massive with desiccation cracks; firm; sticky and plastic; few fine roots along desiccation crack surfaces; 1 percent pebbles; few fine vesicular and tubular pores; common distinct light gray (10YR 7/2) carbonate coats on prism faces and

few firm carbonate nodules; common medium faint yellowish brown (10YR 5/4) soft masses of iron accumulation; moderately alkaline, strongly effervescent; clear irregular boundary.

C2—65 to 93 inches, brown (10YR 4/3) silty clay; gray (N5/) desiccation crack surfaces; massive with some desiccation cracks; firm; sticky and plastic; 1 percent pebbles; moderately alkaline, violently effervescent.

The thickness of the solum ranges from 20 to 36 inches. Depth to carbonates ranges from 20 to 60 inches. Depth to bedrock is more than 60 inches. Rock fragments range from 0 to 3 percent. Reaction ranges from strongly acid to slightly alkaline in the solum.

The A or Ap horizons have hue of 10YR to 5Y, value of 2 to 5, and chroma of 1 to 3. Texture is silt loam, but range from very fine sandy loam to clay. These horizons have granular or subangular blocky or angular blocky structure and very friable to firm consistence.

Some pedons have an E horizon that has hue of 10YR to 5Y, value of 3 to 6, and chroma of 2 to 4, and have redoximorphic features. Texture ranges from silt loam or very fine sandy loam to silty clay. It has angular or subangular blocky to platy structure and friable or firm consistence.

The Bt horizon has hue of 10YR to 5Y, value of 3 to 5, and chroma of 2 to 4. The horizon typically has greater than 50 percent redoximorphic depletions on ped faces with redoximorphic concentrations in ped interiors. Texture ranges from silty clay loam to clay in individual subhorizons but averages clay. It has angular or subangular blocky structure, within coarse or very coarse prisms in some pedons. The Bt horizon is firm or very firm. Some pedons have a BC or CB horizon.

The C horizon has colors similar to Bt horizons, except redoximorphic features are commonly of lower contrast. Texture ranges from silty clay loam to clay. The C horizons are massive, with varves in many pedons. Some pedons have coarse prismatic structure that is massive within prisms. When disturbed, the material in many pedons parts into aggregates resembling angular blocky structure, but lack the coatings of oriented clay found in the Bt horizons.

Knob Lock Series

The Knob Lock series consists of very shallow and shallow, well drained to excessively drained soils on summits, shoulders, and backslopes of glaciated mountains, hills, and ridges in the Adirondack Upland. Knob Lock soils formed in decomposing plant material, sometimes underlain by a thin (up to 4 inches) mineral soil layer, directly over meta-igneous bedrock. Slopes range from 15 to 60 percent.

Knob Lock soils are associated on the landscape with Tunbridge, Rawsonville, Lyman, and Hogback soils. Tunbridge and Rawsonville soils are loamy and are moderately deep to bedrock. Lyman and Hogback soils are loamy and are shallow to bedrock.

Typical pedon of Knob Lock peat, in a map unit of Hogback-Knob Lock complex, 35 to 60 percent slopes, in a forested area, in the town of Keene, summit of Blueberry Mountain, about 2.5 miles northwest of the hamlet of Keene Valley; USGS Mt. Marcy 15 minute topographic quadrangle; NAD 1983; lat. 44 degrees, 13 minutes, 03 seconds N. and long. 73 degrees, 48 minutes, 56.6 seconds W.

Oe—0 to 3 inches; dark reddish brown (5YR 2.5/2) broken, crushed and rubbed moderately decomposed plant (hemic) material; about 45 percent fiber, 27 percent rubbed; weak fine granular structure; friable; many fine, very fine and medium roots; extremely acid; clear smooth boundary.

Oa—3 to 7 inches; black (5YR 2.5/1) broken, crushed and rubbed highly decomposed plant (sapric) material; about 27 percent fiber, 15 percent rubbed; weak fine and

medium granular structure; friable; many fine and very fine, and common medium roots; extremely acid; clear smooth boundary.

Bs—7 to 9 inches; dark reddish gray (5YR 4/2) very fine sandy loam; weak medium and fine subangular blocky structure; friable; common very fine and fine, and few medium roots; very strongly acid; abrupt smooth boundary.

R—9 inches; Marcy Anorthosite.

The depth to bedrock ranges from 1 to 20 inches. Very thin mineral layers are at the bedrock interface in most pedons. Rock fragments range from 0 to 50 percent in the mineral layers. The organic and mineral layers are extremely acid or very strongly acid.

The Oi horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 4, and chroma of 0 to 4. The horizon is slightly decomposed plant (fibric) material.

The Oe horizon is neutral or has hue of 2.5YR to 10YR, value of 2 or 3, and chroma of 0 to 6. It is moderately decomposed plant (hemic) material.

The Oa horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 5, and chroma of 0 to 2. It is highly decomposed plant (sapric) material.

The mineral horizons have hue of 5YR to 5B, value of 2 to 7, and chroma of 1 to 3. They are A, E, Bh, Bhs, or C horizons. Texture is coarse sand, sand, loamy sand, loamy fine sand, sandy loam, fine sandy loam, very fine sandy loam, or loam in the fine-earth.

Livingston Series

The Livingston series consists of very deep, very poorly drained soils in depressions on lake plains in the Champlain Valley. Livingston soils formed in clayey sediments deposited in still water that was fresh or brackish. Slopes range from 0 to 3 percent.

Livingston soils are associated on the landscape with Vergennes, Kingsbury, Covington, Cayuga, Churchville, Amenia, and Whallonsburg soils. Vergennes soils are moderately well drained. Kingsbury soils are somewhat poorly drained. Covington soils are poorly drained. Cayuga soils are clayey over loamy and are moderately well drained. Churchville soils are clayey over loamy and are somewhat poorly drained. Whallonsburg soils are mucky.

Typical pedon of Livingston mucky silty clay loam, 0 to 3 percent slopes, in the town of Essex, 250 feet south of the intersection of Middle Road and School Road, then 756 feet west of Middle Road (10 feet north of fence line), in a pasture; USGS Willsboro 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 17 minutes 50 seconds N. and long. 73 degrees 22 minutes 48 seconds W.

Ap—0 to 9 inches, very dark gray (N 3/0) mucky silty clay loam; gray (N 5/0) dry; strong fine granular structure; friable, slightly sticky, slightly plastic; common fine and medium roots, few coarse roots; neutral; clear smooth boundary.

Bg1—9 to 21 inches, gray (N 5/0) clay; weak very coarse prismatic structure parting to moderate fine and medium angular blocky structure; firm, very sticky, very plastic; few fine roots; few fine pores; common medium prominent brown (7.5YR 4/4) soft masses of iron accumulation; neutral; gradual wavy boundary.

Bg2—21 to 35 inches, gray (5Y 5/1) clay; weak very coarse prismatic structure parting to moderate fine and medium angular blocky structure; firm, very sticky, very plastic; few fine roots; few fine pores; many medium and fine prominent strong brown (7.5YR 4/6) and dark yellowish brown (10YR 4/4) soft masses of iron accumulation; neutral; gradual smooth boundary.

BCg—35 to 46 inches, gray (N 5/0 and 5Y 5/1) clay; weak thick platy structure; firm, sticky, plastic; few fine pores; many medium and coarse distinct olive (5Y 5/4) soft masses of iron accumulation; neutral; gradual wavy boundary.

Cg1—46 to 56 inches, grayish brown (2.5Y 5/2) clay; massive with varves; sticky, plastic; few fine pores; some gray (N 5/0) plate faces; common medium and coarse

distinct dark yellowish brown (10YR 4/4) soft masses of iron accumulation; slightly alkaline, slightly effervescent; gradual smooth boundary.

Cg2—56 to 72 inches, dark gray (10YR 4/1) and dark grayish brown (10YR 4/2) clay; massive with varves; sticky, plastic; few fine pores; some gray (10YR 6/1) ped surfaces; common medium and coarse prominent dark yellowish brown (10YR 4/6) soft masses of iron accumulation; moderately alkaline, strongly effervescent.

The thickness of solum ranges from 30 to 48 inches. Depth to bedrock is greater than 60 inches. Reaction ranges from strongly acid to slightly alkaline in the A and Bg horizons, is neutral or slightly alkaline in the BCg horizon, and ranges from slightly alkaline to moderately alkaline in the Cg horizon. Flooded and depressional phases of the Livingston series are recognized.

The A horizon is neutral or has hue of 5YR to 5Y, value of 2 to 3, and chroma of 0 or 1. Texture is clay, silty clay, silty clay loam, or their mucky analogs. Structure is moderate or strong, very fine to coarse granular or very fine subangular blocky. Consistence is very friable or friable. It is sticky and plastic.

The Bg and BCg horizon are neutral or have hue of 10YR to 5Y, value of 4 or 5, and chroma of 0 to 2. Texture is clay. Structure is weak to strong, medium to very coarse prismatic or weak to strong, very fine to medium subangular or angular blocky, or weak or moderate, medium or thick platy. Consistence is firm or very firm. It is sticky or very sticky, plastic or very plastic.

The Cg horizon is neutral or has hue of 10YR to 5Y, value of 4 or 5, and chroma of 1 or 2. Some strata may range to chroma of 4 in the BCg and Cg horizons. Texture is clay. Structure is moderate or strong, fine or medium, angular or subangular blocky, or is massive with varves. Consistence is firm or very firm It is sticky or very sticky, plastic or very plastic.

Lovewell Series

The Lovewell series consists of very deep, moderately well drained soils on flood plains. Lovewell soils formed in alluvial sediments dominated by very fine sand and silt. Slopes range from 0 to 3 percent.

Lovewell soils are in a drainage sequence with the somewhat poorly drained Cornish soils and the very poorly drained Medomak soils. Lovewell soils are also associated on the landscape with Monadnock, Kalurah, Adams, Colton, and Wonsqueak soils. Lovewell soils have fewer rock fragments than Monadnock and Kalurah soils. Lovewell soils have an irregular decrease in organic carbon content relative to depth whereas Adams and Colton soils decrease in organic carbon with depth. Lovewell soils do not have a thick organic accumulation as is characteristic of Wonsqueak soils.

Typical pedon of Lovewell very fine sandy loam, 0 to 3 percent slopes, in the town of Champlain, Clinton County NY, about 250 feet north of intersection of Simmons Road with St. John’s Road, and 2,600 feet east of St. Johns’s Road in a cornfield; USGS Mooers, NY 7.5 minute topographic quadrangle; NAD 1927; lat. 44 degrees 57 minutes 14 seconds N. and long. 73 degrees 30 minutes 31 seconds W.

Ap—0 to 11 inches; dark brown (10YR 3/3) very fine sandy loam, pale brown (10YR 6/3) dry; weak coarse subangular blocky parting to weak medium granular structure; friable; common very fine roots; moderately acid; abrupt smooth boundary.

Bw1—11 to 20 inches; yellowish brown (10YR 5/4) very fine sandy loam; weak coarse and medium subangular blocky structure; friable; few very fine roots; moderately acid; clear wavy boundary.

Bw2—20 to 30 inches; yellowish brown (10YR 5/4) very fine sandy loam, grayish brown (10YR 5/2) face of prisms; weak very coarse prismatic parting to weak

coarse subangular blocky structure; friable; few very fine roots; common medium distinct grayish brown (10YR 5/2) areas of iron depletion, and common medium faint dark yellowish brown (10YR 4/4) masses of iron oxides; strongly acid; clear smooth boundary.

Cg1—30 to 50 inches; light brownish gray (10YR 6/2) very fine sandy loam; massive; friable; many medium distinct dark yellowish brown (10YR 4/4) and many medium prominent dark yellowish brown (10YR 4/6), and common fine prominent yellowish brown (10YR 5/6) masses of iron oxides; very strongly acid; abrupt smooth boundary.

Cg2—50 to 56 inches; grayish brown (10YR 5/2) fine sand; weak thick platy structure; very friable; many medium and coarse distinct yellowish brown (10YR 5/4) and medium and coarse prominent yellowish brown (10YR 5/6) masses of iron oxides; strongly acid; clear smooth boundary.

Cg3—56 to 75 inches; gray (10YR 5/1) fine sand; massive; very friable; many coarse distinct dark yellowish brown (10YR 3/4) masses of iron oxides; strongly acid.

The thickness of the solum ranges from 20 to 30 inches. Gravel content ranges from 0 to 5 percent by volume to a depth of 40 inches and from 0 to 20 percent below 40 inches. Redox depletions are between depths of 16 to 24 inches. The soil ranges from very strongly acid to slightly acid, unless limed. Some pedons have buried horizons.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 4. Dry value is 6 or 7.Texture is silt loam or very fine sandy loam. Structure is weak to strong, very fine to coarse, granular or subangular blocky. Consistence is very friable or friable.

The B horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 to 6. Texture is silt loam or very fine sandy loam. Structure is weak or moderate, fine to coarse, granular or subangular blocky. Some pedons have platy or prismatic structure. Consistence is very friable or friable. A CB horizon is present in some pedons between the B and C horizons.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 4. Texture is silt loam, very fine sandy loam, or loamy very fine sand. Some pedons have strata below 40 inches that range from silt loam to fine gravel. The C horizon is massive or single grain, depending upon texture, or has platy structure. Consistence ranges from loose to friable.

Lyman Series

The Lyman series consists of shallow, somewhat excessively drained soils on summits, shoulders, and backslopes of glaciated mountains, hills, and ridges in the Adirondack Upland. Lyman soils formed in loamy sediments deposited by glacial ice, and are underlain by meta-igneous bedrock. Slopes range from 3 to 60 percent.

Lyman soils are associated on the landscape with Tunbridge, Knob Lock, Becket, Monadnock, Skerry, Adirondack, and Tahawus soils. Tunbridge soils are 20 to 40 inches deep to meta-igneous bedrock and are well drained. Knob Lock soils are mucky, 2 to 20 inches deep to meta-igneous bedrock, and are well to excessively drained. Becket soils are very deep and well drained. Monadnock soils are loamy over sandy or gravelly, very deep, and well drained. Skerry soils are very deep and moderately well drained. Adirondack soils are very deep and somewhat poorly drained. Tahawus soils are sandy, very deep, and very poorly drained (fig. 42).

Typical pedon of Lyman gravelly sandy loam, in a map unit of Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery, in the town of Wilmington, 2.1 miles South on Bartlett Road from intersection with County Route 12, then .45 mile West on Bartlett Road (before crossing Liscomb Brook), 1,500 feet due north through woods onto bedrock ridge, in a stand of northern red oak and red pine; USGS Lake Placid, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees, 18 minutes, 34 seconds N. and long. 73 degrees, 48 minutes, 54 seconds W.

Figure 42.—Soil profile of the Lyman series from a hand dug pit, in the town of Jay, in a mixed pine and hardwood forest. This profile, which is about 14 inches deep, has a very thin gray albic horizon, and a more weakly developed reddish brown spodic horizon than the higher elevation Hogback soils.

Oi—0 to 1/2 inch, slightly decomposed needles, leaves, and twigs.

Oe—1/2 to 1 inch, very dark brown (10YR 2/2) moderately decomposed (hemic) plant material; structureless; very friable; many fine and very fine roots, common medium roots; 5 percent rock fragments (gravel and cobbles); very strongly acid; abrupt smooth boundary.

Oa—1 to 2 inches, black (10YR 2/1) highly decomposed (sapric) plant material; massive or weak fine granular structure; very friable; many fine and very fine roots, common medium roots, few coarse roots; 10 percent rock fragments (gravel and cobbles); very strongly acid; abrupt smooth boundary.

E—2 to 3 inches, gray (5YR 6/1) gravelly sandy loam; massive; very friable; many fine and very fine roots, few medium and coarse roots; 10 percent gravel, 5 percent cobbles, 1 percent stones; very strongly acid; abrupt wavy boundary.

Bs—3 to 9 inches, brown (7.5YR 4/4 and 5/4) gravelly sandy loam, weak fine granular structure; friable; many fine and very fine roots, few medium and coarse roots; 10 percent gravel, 5 percent cobbles, 1 percent stones; very strongly acid; clear wavy boundary.

BC1—9 to 13 inches, yellowish brown (10YR 5/4) gravelly sandy loam; weak fine subangular blocky structure; friable; common fine and very fine roots, few medium and coarse roots; 15 percent gravel, 5 percent cobbles, 1 percent stones; strongly acid; gradual wavy boundary.

BC2—13 to 18 inches, brown (10YR 5/3) gravelly sandy loam; massive; friable; common fine and very fine roots, few medium and coarse roots; 20 percent gravel, 5 percent cobbles, 1 percent stones; strongly acid.

R—18 inches, Marcy Anorthosite.

Mineral solum thickness ranges from 10 to 20 inches and corresponds to the depth to bedrock. Rock fragments consist of 5 to 25 percent gravel and 0 to 10 percent cobbles throughout, and 0 to 15 percent stones in the A horizon and 0 to 3 percent

stones in the B horizon. Rock fragments are schist with lesser amounts of phyllite, granite, and gneiss. The soil ranges from extremely acid to moderately acid throughout, unless limed.

The O horizon consists of fibric, hemic and/or sapric material.

The A horizon is neutral or has hue of 5YR to 10YR, value of 2, 2.5 or 3, and chroma of 0 to 2. Some pedons have Ap horizons with value and chroma of 2 to 4. Ap horizons are typically 6 inches or more thick. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam or silt loam in the fine-earth fraction.

The E horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 1 or 2. Texture is loamy sand, loamy fine sand, sandy loam, fine sandy loam, very fine sandy loam, loam or silt loam in the fine-earth fraction.

The Bhs horizon has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 1 to 3.

The Bs horizon has hue of 5YR to 10YR, value of 3 to 5, and chroma of 3 to 8. Some pedons have a Bh horizon with chroma of 5YR to 10YR, value of 2 to 3 and chroma of 1 to 4. Texture of the Bhs, Bs, and Bh is sandy loam, fine sandy loam, very fine sandy loam, loam or silt loam in the fine-earth fraction.

Some pedons have a BC horizon with hue of 10YR to 5Y, value of 3 to 5, and chroma of 3 or 4. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam in the fine-earth fraction.

The R or 2R layer is generally dark gray, greenish gray or nearly black mica schist bedrock but in places the underlying bedrock is phyllite, granite or gneiss.

Malone Series

The Malone series consists of very deep, somewhat poorly drained soils on footslopes and saddles of glaciated hills and ridges and on till plains in the eastern foothills of the Adirondack High Peaks Region. Malone soils formed in loamy sediments underlain by firm, loamy, calcareous lodgment till. Slopes range from 3 to 8 percent.

Malone soils are associated on the landscape with Kalurah, Typic Endoaquolls, Wonsqueak, Pyrities, Nehasne, and Tunbridge soils. Kalurah soils are moderately drained. Typic Endoaquolls soils are poorly drained. Wonsqueak soils are very poorly drained, and have a thick mucky surface. Pyrities soils are well drained. Nehasne soils are well drained, and are 20 to 40 inches deep to marble bedrock. Tunbridge soils are acid, well drained, and are 20 to 40 inches deep to meta-igneous bedrock.

Typical pedon of Malone silt loam, 3 to 8 percent slopes, in an idle hay field, town of Crown Point, 700 feet west of a point on Whitehead Road, that is 2,300 feet south of the junction of Whitehead Road and North Road; USGS Crown Point 7.5 minute topographic quadrangle; NAD 1927; lat. 43 degrees 55 minutes 47 seconds N. and long. 73 degrees 32 minutes 35 seconds W.

Ap—0 to 7 inches; very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; strong fine and medium granular structure; friable; many fine and very fine roots; 5 percent rock fragments; slightly acid; clear smooth boundary.

E—7 to 12 inches; dark grayish brown (10YR 4/2) silt loam; moderate fine and medium subangular blocky structure; friable; many fine and very fine roots; 5 percent rock fragments; many fine prominent yellowish red (5YR 4/6) masses of iron accumulation; neutral; clear smooth boundary.

Bw1—12 to 17 inches; dark yellowish brown (10YR 4/4 and 4/6) loam; moderate fine and medium subangular blocky structure; friable; common fine and very fine roots; common fine tubular pores; 7 percent rock fragments; few fine distinct strong brown (7.5YR 5/8) masses of iron accumulation, and few fine distinct light brownish gray (10YR 6/2) iron depletions; neutral; clear smooth boundary.

Bw2—17 to 25 inches; brown (10YR 4/3) loam; moderate medium and coarse subangular blocky structure; friable; few fine roots; common fine and medium tubular and few fine vesicular pores; 7 percent rock fragments; common fine and

medium prominent yellowish brown (10YR 5/8) masses of iron accumulation and common fine and medium faint light brownish gray (10YR 6/2) iron depletions; neutral; clear smooth boundary.

Cd—25 to 72 inches; brown (10YR 5/3) loam; massive with weak thick plate-like divisions, firm; many fine tubular and common fine vesicular pores; 10 percent rock fragments; many fine and medium prominent strong brown (7.5YR 5/8) masses of iron accumulation and many fine and medium distinct gray (10YR 6/1) iron depletions; slightly effervescent, slightly alkaline.

The thickness of the solum ranges from 18 to 38 inches. Depth to carbonates range from 18 to 50 inches. Depth to bedrock is greater than 60 inches. Limestone or dolomite limestone rock fragments, gravel, cobbles, and channers range from 5 to 35 percent by volume in the solum and 5 to 50 percent in the substratum.

The Ap horizon has hue of 10YR, value of 2 to 5, and chroma of 1 to 3. Texture is silt loam, loam, fine sandy loam, or sandy loam in the fine-earth fraction. Reaction is moderately acid or slightly acid, unless limed. Some pedons have an E horizon with hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 1 or 2. Texture is silt loam, loam, fine sandy loam, or sandy loam in the fine-earth fraction. Reaction is moderately acid to neutral.

The Bw horizon has hue of 5YR to 2.5Y, value 3 to 6, and chroma of 3 to 6. Texture is sandy loam, fine sandy loam, or loam in the fine-earth fraction. Reaction is slightly acid or neutral.

The Bg horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 1 or 2. Texture is loam, fine sandy loam, or sandy loam in the fine-earth fraction, with thin subhorizons of silty clay loam or silt loam in some pedons. Reaction is slightly acid or neutral.

Some pedons have a BC horizon with hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 1 to 3. Texture is loam, fine sandy loam, or sandy loam in the fine-earth fraction, with thin subhorizons of silty clay loam or silt loam in some pedons. Reaction is slightly acid to slightly alkaline.

The Cd horizon has hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 4. Texture is loam, fine sandy loam, or sandy loam in the fine-earth fraction. Reaction ranges from neutral to moderately alkaline.

Massena Series

The Massena series consists of very deep, somewhat poorly drained soils on footslopes of glaciated ridges and hills and on till plains in the Champlain Valley. Massena soils formed in loamy sediments underlain by loamy, calcareous basal till. Slopes range from 0 to 8 percent.

Massena soils are associated on the landscape with Nellis, Amenia, Bombay, Georgia, Sun, Kingsbury, and Stafford soils. Nellis soils are well drained. Amenia, Bombay, and Georgia soils are moderately well drained. Sun soils are poorly drained. Kingsbury soils are clayey. Stafford soils are sandy.

Typical pedon of Massena gravelly silt loam, 0 to 3 percent slope, in a corn field, in the town of Essex, approximately 175 feet north of Sanders Road at a point about 1.4 miles southwest of junction with West Road; USGS Willsboro 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 18 minutes 34 seconds N. and long. 73 degrees 26 minutes 24 seconds W.

Ap—0 to 9 inches, very dark grayish brown (10YR 3/2) gravelly silt loam; light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; few fine and medium roots; 20 percent rock fragments; slightly acid; abrupt smooth boundary.

Bw1—9 to 18 inches, brown (10YR 5/3) loam; grayish brown (10YR 5/2) ped faces; moderate medium subangular blocky structure; friable; few fine and medium roots;

10 percent rock fragments; common fine distinct gray (10YR 5/1) iron depletions and many medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral; clear smooth boundary.

Bw2—18 to 24 inches, brown (10YR 5/3) loam; grayish brown (10YR 5/2) ped faces; moderate medium subangular blocky structure; friable; 10 percent rock fragments; few fine distinct gray (10YR 5/1) iron depletions; neutral; clear smooth boundary.

C—24 to 72 inches, brown (10YR 5/3) gravelly sandy loam; massive; friable; 20 percent rock fragments; many medium faint grayish brown (10YR 5/2) iron depletions and many medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; slightly alkaline, slightly effervescent.

The thickness of the solum ranges from 18 to 36 inches. Depth to carbonates mainly range from 20 to 50 inches, but in some pedons carbonates are deeper than 50 inches. Depth to bedrock is more than 60 inches. Rock fragments range from 5 percent to 35 percent by volume in the mineral solum and from 5 percent to 50 percent in the C horizon. Reaction ranges from moderately acid through neutral in the mineral solum, and from neutral through moderately alkaline in the C horizon.

The A or Ap horizon has hue of 7.5YR to 2.5Y, value of 3 or 4, and chroma of 1 or 2. Texture of the fine-earth fraction ranges from fine sandy loam to silt loam. Structure is weak to moderate, very fine to medium granular. Consistence is friable or very friable.

The Bw horizon has hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 3 or 4 and has redoximorphic features. Texture of the fine-earth fraction is sandy loam, fine sandy loam, or loam. Structure is medium or fine subangular blocky, or it is massive. Consistence is friable or very friable.

The Bg horizon has hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 1 or 2 and has redoximorphic features. Texture of the fine-earth fraction is sandy loam, fine sandy loam, or loam. Structure is medium or fine subangular blocky, or it is massive. Consistence is friable or very friable.

Some pedons have a BC horizon with color and texture similar to that of the B horizon. Structure is medium or fine subangular blocky, or moderate, thin to medium platy.

The C or Cg horizon has hue of 5YR to 5Y, value of 4 to 6, and chroma of 1 to 4. Texture of the fine-earth fraction is sandy loam, fine sandy loam, or loam. Structure is platy or it is massive. Consistence in the upper part of the horizon is friable, but is firm in the lower part of some pedons.

Some pedons have 2C, 2Cg, or 3Cg horizons.

Medomak Series

The Medomak series consists of very deep, very poorly drained soils on flood plains in intermontane valleys of the Adirondack Upland. Medomak soils formed in silty sediments deposited by flood waters. Slopes range from 0 to 3 percent.

Medomak soils are associated on the landscape with Lovewell, Cornish, Charles, Adams, Depeyster, and Becket soils. Lovewell soils are moderately well drained. Cornish soils are somewhat poorly drained. Charles soils are poorly drained. Adams soils are sandy and somewhat excessively drained. Depeyster soils are silty clay and moderately well drained. Becket soils are loamy and well drained.

Typical pedon of Medomak mucky silt loam, 0 to 3 percent slopes, in a wooded area, in the town of Chesterfield, 0.7 miles south on Trout Pond Road (from Green Street) to intermittent stream, then 300 feet northeast along stream, then 150 feet north from stream, in woods at edge of meadow; USGS Ausable Forks, NY 15 minute topographic quadrangle; NAD 1927; and lat. 44 degrees 26 minutes 55 seconds N. and long. 73 degrees 34 minutes 42 seconds W.

Oi—0 to 1 inch; slightly decomposed leaves, roots, and twigs; few coarse roots.

Oa—1 to 5 inches; very dark brown (10YR 2/2) muck; massive; very friable, slightly sticky, non-plastic; many very fine and common fine roots; slightly acid; abrupt wavy boundary.

A—5 to 11 inches; very dark grayish brown (10YR 3/2) mucky silt loam, grayish brown (10YR 5/2) dry; weak fine granular structure; very friable, slightly sticky, non-plastic; common very fine and few fine roots; neutral; clear irregular boundary.

Cg1—11 to 20 inches; dark gray (2.5Y 4/1) silt loam; massive; friable, slightly sticky and slightly plastic; common medium faint grayish brown (2.5Y 5/2) iron depletions; neutral; clear wavy boundary.

Cg2—20 to 29 inches; gray (2.5Y 5/1) very fine sandy loam; massive; very friable, slightly sticky, non-plastic; neutral; abrupt wavy boundary.

A'—29 to 31 inches; very dark brown (7.5YR 2.5/2) mucky very fine sandy loam; massive; very friable, slightly sticky, non-plastic; neutral; abrupt wavy boundary.

Cg1'—31 to 41 inches; gray (2.5Y 6/1) very fine sandy loam; massive; very friable, slightly sticky, non-plastic; common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation; neutral; clear wavy boundary.

Cg2'—41 to 48 inches; grayish brown (2.5Y 5/2) silt loam; massive; very friable, slightly sticky and slightly plastic; common medium distinct yellowish brown (10YR 5/4) masses of iron accumulation and common medium faint gray (2.5Y 6/1) iron depletions; neutral; clear wavy boundary.

2Cg3'—48 to 72 inches; light brownish gray (2.5Y 6/2) loamy very fine sand; massive; very friable; few fine distinct yellowish brown (10YR 5/4) masses of iron accumulation and common medium faint gray (2.5Y 6/1) iron depletions; slightly effervescent, slightly alkaline.

Depth to bedrock is more than 60 inches. Rock fragments above a depth of 40 inches range from 0 to 5 percent and from 0 to 50 percent below 40 inches. Reaction ranges from extremely acid to neutral to a depth of about 30 inches and from extremely acid to slightly alkaline below 30 inches. Some subhorizon within the control section has a reaction of moderately acid to neutral. Some pedons have carbonates below a depth of 40 inches, and some pedons have buried horizons.

The O horizon, where present, has hue of 5YR to 10YR, value of 2 or 3 and chroma of 1 or 2. The horizon is less than 4 inches thick.

The A horizon, or Ap horizon where present, is neutral or has hue of 7.5YR to 2.5Y, value of 2 or 3 and chroma of 0 to 2. Texture is silt loam, very fine sandy loam, or their mucky analogues. Areas that have been drained and plowed are not mucky over a period of time. It has weak or moderate very fine to coarse granular structure. The A horizon is very friable or friable, nonsticky and nonplastic, or slightly sticky and slightly plastic.

The Cg horizon is neutral or has hue of 10YR to 5GY, value of 3 to 6 and chroma of 0 to 2. The upper part of the Cg horizon of most pedons has few or common, faint to prominent redox concentrations. Texture is silt loam, very fine sandy loam, or loamy very fine sand but below 40 inches ranges from silt loam to fine gravel. The Cg horizon is massive except the coarser textured Cg horizon, where present, may be single grain. Consistence is very friable or friable, nonsticky and nonplastic or slightly sticky and slightly plastic but ranges to loose where the Cg horizon is coarse textured.

Correlation Note: The MdA map unit is a taxadjunct to the Medomak series because the pedon qualifies as having a Mollic epipedon in the Ap horizon and is a Mollisols. The classification of the taxadjunct is Coarse-silty, mixed, superactive, frigid Fluvaquentic Endoaquolls. The classification of the Medomak series is Coarse-silty, mixed, supreactive, nonacid, frigid Fluvaquentic Humaquepts. This should not significantly affect use and management on a local basis for most purposes.

Monadnock Series

The Monadnock series consists of very deep, well drained soils on summits, shoulders, backslopes, and footslopes of glaciated hills and ridges, and on till plains. Monadnock soils formed in loamy sediments underlain by sandy or gravelly, friable glacial till. Slopes range from 3 to 60 percent.

Monadnock soils are associated on the landscape with Tunbridge, Sunapee, Tahawus, Adams, Colton, and Becket soils. Tunbridge soils are 20 to 40 inches deep to meta-igneous bedrock. Sunapee soils are moderately well drained. Tahawus soils are sandy and very poorly drained. Adams soils are sandy and somewhat excessively drained. Colton soils are gravelly and excessively drained. Becket soils have a compact, very firm substratum.

Typical pedon of Monadnock fine sandy loam, 8 to 15 percent slopes, very bouldery, in the town of North Elba, in the road bank on the northeast side of McKenzie Pond Road (County Route 33), 1.4 miles northwest of NY Route 86, adjacent to fenced-in playing field; USGS Saranac Lake 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees, 18 minutes, 48 seconds N. and long. 74 degrees, 6 minutes, 0 seconds W.

Oe—0 to 2 inches, black (10YR 2/1) moderately decomposed (hemic) plant material; weak fine granular structure; very friable; many fine and very fine roots, common medium roots; 5 percent rock fragments (gravel and cobbles); very strongly acid; abrupt smooth boundary.

E—2 to 3 inches, brown (7.5YR 5/2) fine sandy loam; structureless; very friable; many fine and very fine roots, common medium roots; 5 percent rock fragments (gravel and cobbles); very strongly acid; abrupt smooth boundary.

Bs1—3 to 12 inches, brown (7.5YR 4/4) fine sandy loam; weak fine and medium subangular blocky structure; very friable; many fine and very fine roots, few medium roots; 10 percent rock fragments (gravel and cobbles); strongly acid; clear wavy boundary.

Bs2—12 to 19 inches, brown (7.5YR 5/4) fine sandy loam; weak fine and medium subangular blocky structure; very friable; common fine and very fine roots, few medium roots; 10 percent rock fragments (gravel and cobbles); strongly acid; clear wavy boundary.

BC—19 to 30 inches, brown (10YR 5/3) fine sandy loam; massive; friable; common fine and very fine roots; 10 percent rock fragments (gravel and cobbles); strongly acid; gradual wavy boundary.

2C1—30 to 37 inches, brown (10YR 5/3) gravelly loamy sand; massive; friable; few fine and very fine roots; 15 percent gravel, 5 percent cobbles, 2 percent stones; strongly acid; gradual wavy boundary.

2C2—37 to 72 inches, grayish brown (10YR 5/2) gravelly sand; massive, with weak thin plate-like divisions in upper part; friable; few fine and very fine roots; 20 percent gravel, 5 percent cobbles, 2 percent stones; strongly acid.

The thickness of the mineral solum ranges from 15 to 30 inches. Rock fragments range from 0 to 30 percent in the mineral solum and from 5 to 60 percent in the substratum. Stones range from 0 to 20 percent in the surface layer, 0 to 15 percent in the subsoil, and 0 to 25 percent in the substratum. Cobbles range from 0 to 35 percent in the surface layer, 0 to 15 percent in the subsoil, and 0 to 20 percent in the substratum. Gravel ranges from 0 to 20 percent in the surface layer, 0 to 20 percent in the subsoil, and 0 to 45 percent in the substratum. Reaction ranges from extremely acid to moderately acid.

Some pedons have an 0 horizon that is neutral or has hue of 2.5YR to 10YR, value of 2 to 3 and chroma of 0 to 2. The horizon is highly, moderately, or slightly decomposed plant (fibric, hemic or sapric) material and is up to 5 inches thick.

The A horizon has hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 1 to 3. Texture is loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction.

Some pedons have an Ap horizon that has hue of 10YR and value and chroma of 2 to 4.

The E horizon has hue of 5YR to 2.5Y, value of 4 to 7, and chroma of 1 or 2. Texture range is the same as the A horizon.

Some pedons have a Bhs horizon that has hue of 2.5YR to 7.5YR, value and chroma of 3 or less.

Some pedons have a Bh horizon that has hue of 2.5YR to 7.5YR, value and chroma of 4 or less.

The Bs horizon has hue of 2.5YR to 2.5Y, value of 3 to 6, and chroma of 3 to 8.

The Bs and Bhs horizons are dominantly fine sandy loam, but include loam and very fine sandy loam in the fine-earth fraction.

Some pedons have a BC horizon that has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 3 to 8. Texture is loam, fine sandy loam, sandy loam, loamy fine sand, or loamy sand in the fine-earth fraction. It is 0 to 15 inches thick.

Some pedons have a thin C horizon overlying the contrasting 2C horizon. Texture is fine sandy loam or sandy loam in the fine-earth fraction.

The 2C horizon has hue of 10YR to 5Y, value of 4 to 7, and chroma of 2 to 4. Texture is loamy coarse sand, loamy sand, or loamy fine sand in the fine-earth fraction. Less typically, some pedons may range to sand. Structure is weak thick platy or it is massive or single grain. Consistence ranges from loose to firm. Some pedons have lenses or pockets of sand.

Mooers Series

The Mooers series consists of very deep, moderately well drained sandy soils on deltas, outwash plains, outwash terraces, and high stream terraces in the Adirondack Upland. Mooers soils formed in stratified, water deposited, sandy sediments. Slopes range from 0 to 5 percent.

Mooers soils are associated on the landscape with Champlain, Colton, Pyrities, Becket, Tunbridge, and Rumney soils. Champlain soils are somewhat excessively drained. Colton soils are gravelly and excessively drained. Pyrities and Becket soils are loamy and well drained. Tunbridge soils are loamy, well drained, and are 20 to 40 inches deep over meta-igneous bedrock. Rumney soils are loamy and poorly drained.

Typical pedon of Mooers loamy fine sand, 0 to 3 percent slopes, in a wooded area, town of Lewis, 0.25 miles east on Steel Woods Road from junction with U.S. Route 9, then 120 feet south into woods; USGS Elizabethtown 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees, 14 minutes, 44 seconds N. and long. 73 degrees, 33 minutes, 48 seconds W.

Oe—0 to 1 inch, moderately decomposed plant (hemic) material; many fine and very fine roots; abrupt smooth boundary.

A—1 to 4 inches; very dark grayish brown (10YR 3/2) loamy fine sand, light brownish gray (10YR 6/2) dry; weak fine granular structure; very friable; many fine and very fine, common medium, and few coarse roots; strongly acid; clear wavy boundary.

Bw—4 to 16 inches; dark yellowish brown (10YR 4/6) loamy fine sand; weak medium subangular blocky structure; very friable; common fine and very fine, and few medium and coarse roots; moderately acid; gradual wavy boundary.

BC—16 to 22 inches; yellowish brown (10YR 5/4) fine sand; single grain; loose; common fine and very fine roots; 2 percent gravels and cobbles; moderately acid; gradual wavy boundary.

C1—22 to 42 inches; light yellowish brown (2.5Y 6/3) fine sand; single grain; loose; few very fine roots; 2 percent gravels and cobbles; common fine prominent strong

brown (7.5YR 5/6) soft masses of iron accumulation; slightly acid; clear wavy boundary.

C2—42 to 58 inches; light brownish gray (2.5Y 6/2) sand; single grain; loose; slightly acid; gradual wavy boundary.

C3—58 to 72 inches, grayish brown (2.5Y 5/2), sand; single grain; loose; common medium faint gray (2.5Y 5/1) depletions; slightly acid.

The thickness of the solum ranges from 22 to 55 inches. Depth to carbonates is greater than 50 inches. Redoximorphic features consisting of masses of iron accumulation occur between 18 and 30 inches of the soil surface. Redoximorphic depletions may also be present, but are restricted to below 40 inches from the soil surface. Depth to bedrock is greater than 60 inches. Rock fragments are typically absent, but may range up to 2 percent by volume in the lower subsoil and substratum. Unless the soil is limed, reaction ranges from strongly acid to slightly acid in the surface, and from moderately acid to slightly alkaline in the subsoil and substratum.

The Ap or A horizon, where present, has hue of 10YR, value of 3 or 4, and chroma of 2 or 3. Texture is sand, fine sand, loamy sand or loamy fine sand in the fine earth fraction. Structure is weak granular. Consistence is friable or very friable. The A horizon is 2 to 5 inches thick.

The Bw horizons have hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 3 to 6. Faint to prominent redoximorphic concentrations occur between 18 and 30 inches. Texture is sand, fine sand, loamy sand or loamy fine sand in the fine earth fraction. Structure is weak or moderate subangular blocky or it is single grain. Consistence is very friable or loose.

The BC horizon has hue of 10YR or 2.5Y, value of 4 or 5 and chroma of 3 or 4. The horizon has typically has faint to prominent redoximorphic concentrations or depletions. Texture is sand or fine sand in the fine earth fraction. Structure is weak subangular blocky or it is single grain.

The C, 2C, and 3C, if present, horizons have hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 to 4. The horizons typically have faint to prominent redoximorphic concentrations or depletions. Texture is sand, fine sand or loamy fine sand in the fine earth fraction; but 2C horizons can have loamy very fine sand or silt loam textures below a depth of 40 inches. Structure is massive, with or without plate-like divisions, or single grain.

Mundalite Series

The Mundalite series consists of very deep, well drained soils on back slopes and upper footslopes of glaciated mountains and ridges in the Adirondack Upland. Mundalite soils formed in loamy sediments underlain by compact, sandy or loamy, very firm lodgment till. Slopes range from 3 to 60 percent.

Mundalite soils are associated on the landscape with Hogback, Rawsonville, Knob Lock, Ampersand, and Wilmington soils. Hogback soils have meta-igneous bedrock at 10 to 20 inches deep. Rawsonville soils have meta-igneous bedrock at 20 to 40 inches deep. Knob Lock soils are well drained to excessively drained, have meta-igneous bedrock from 2 to 20 inches deep, and are organic. The somewhat poorly drained Ampersand and poorly drained Wilmington soils are on the lower part of footslopes or on toeslopes.

Typical pedon of Mundalite fine sandy loam, in a map unit of Mundalite-Rawsonville complex, 15 to 35 percent slopes, very bouldery, in the town of Dannemora, about 1.9 mile south of the intersection with State Route 374 and 1.0 mile west of Chazy Lake Road; USGS Moffitsville topographic quadrangle; NAD 1927; lat. 44 degrees 43 minutes 27 seconds N. and long. 73 degrees 50 minutes 38 seconds W.

Oa—0 to 1 inch, black (5YR 2.5/1) highly decomposed plant (sapric) material consisting of decomposed roots and leaves.

E—1 to 3 inches, reddish gray (5YR 5/2) fine sandy loam; weak medium and fine subangular blocky structure; very friable; many fine and very fine, and few medium roots; 7 percent rock fragments; extremely acid; abrupt wavy boundary.

Bh—3 to 5 inches, dark reddish brown (5YR 2.5/2) fine sandy loam; weak medium and fine subangular blocky structure; very friable; many fine and very fine roots; strongly smeary; 7 percent rock fragments; very strongly acid; clear wavy boundary.

Bs1—5 to 14 inches, dark reddish brown (5YR 3/4) fine sandy loam; weak medium and fine subangular blocky structure; very friable; many fine and very fine, and few coarse and medium roots; many fine and very fine pores; moderately smeary; 10 percent gravel; strongly acid; clear wavy boundary.

Bs2—14 to 27 inches, dark reddish brown (5YR 3/4) cobbly fine sandy loam; weak coarse and medium subangular blocky structure; friable; common very fine and fine roots; common fine and very fine pores; moderately smeary; 15 percent rock fragments (including 5 percent gravel); very strongly acid; clear wavy boundary.

Cd1—27 to 37 inches, dark yellowish brown (10YR 3/4) very cobbly fine sandy loam; weak thick and very thick platy structure with loamy sand lenses between plates; very firm; few very fine roots in the upper part; common fine and very fine pores; 35 percent rock fragments

Cd2—37 to 72 inches, dark yellowish brown (10YR 4/4) very cobbly loamy sand; massive; very firm; common fine and very fine pores; few fine and medium distinct dark yellowish brown (10YR 4/6) soft masses of Fe accumulation in the matrix; 40 percent rock fragments (including 20 percent gravel); strongly acid.

The thickness of the solum and depth to dense basal till range from 25 to 40 inches. Rock fragments range from 0 to 25 percent in the solum and from 5 to 50 percent in the substratum. The spodic horizon typically is greater than 18 inches thick. Reaction ranges from extremely acid to moderately acid in the solum, and from very strongly acid to slightly acid in the substratum.

The O horizon consists of slightly to highly decomposed plant material. It is neutral or has hue of 5YR to 10YR, value of 2 or 2.5, and chroma of 1.

Some pedons have an A horizon that has a hue of 5YR to 10YR, value of 2 to 3, and chroma of 0 to 2, or the horizon is neutral. Texture of the fine earth fraction is loam, fine sandy loam or sandy loam. Structure is weak or moderate granular. Consistence is very friable.

The E horizon has hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 0 to 3, or is the horizon neutral. Texture of the fine earth fraction is loam, fine sandy loam, or sandy loam. Structure is weak granular or subangular blocky. Consistence is very friable.

The Bh horizon has hue of 10R to 7.5YR, value of 2 to 3, and chroma of 0 to 2, or it is neutral. Texture of the fine earth fraction is loam, fine sandy loam, or sandy loam. Structure is weak or moderate granular, or subangular blocky. Consistence is very friable or friable.

Some pedons have a Bhs horizon up to 20 inches thick. The horizon has hue of 10R to 7.5YR, value of 3 or 4 and chroma of 2 or 3; or hue of 10YR with value and chroma of 2 or less. Texture of the fine earth fraction is loam, fine sandy loam, or sandy loam. Structure is weak prismatic or subangular blocky. Consistence is dominantly friable, but may also have firm masses.

The Bs horizon has hue of 10R to 7.5YR, value and chroma of 3 to 5. Texture of the fine earth fraction is loam, fine sandy loam, or sandy loam. Structure is weak subangular blocky. Consistence is dominantly friable, but some pedons have firm masses in the upper part.

Some pedons have a BC horizon that has hue of 7.5YR to 2.5Y, value of 4 or 5 and chroma of 2 to 6. Texture of the fine earth fraction is fine sandy loam, sandy loam,

loamy fine sand or loamy sand. Structure is subangular blocky or platy. Consistence is friable or firm.

The Cd horizon has hue of 10YR to 5Y, value 3 to 6, and chroma of 2 to 4. Texture of the fine earth fraction ranges from loamy sand to fine sandy loam. Structure is weak or moderate platy, or it is massive. Consistence is firm or very firm.

Naumburg Series

The Naumburg series consists of very deep, somewhat poorly drained soils on deltas, outwash plains, and outwash terraces. Naumburg soils formed in stratified, water deposited, sandy sediments. Slope ranges from 0 to 3 percent (fig. 43).

Naumburg soils are associated on the landscape with Adams, Croghan, Searsport, Fernlake, Monadnock, and Rumney soils. Adams soils are somewhat excessively drained. Croghan soils are moderately well drained. Searsport soils are very poorly drained. Fernlake soils are well drained. Monadnock soils are loamy over sandy and are well drained. Rumney soils are loamy and poorly drained.

Typical pedon of Naumburg loamy fine sand, 0 to 3 percent slopes, in a forested area, Town of North Elba, 2,800 feet south of Rt. 86, and 100 feet west of the old Penn Central Railroad bed; USGS Saranac Lake 15 topographic quadrangle; NAD 1927; lat. 44 degrees, 17 minutes, 50 seconds N. and long. 74 degrees, 06 minutes, 37 seconds W.

Oa—0 to 2 inches; black (N 2.5/0) highly decomposed (sapric) plant material; very friable; many very fine and fine, and common coarse roots; extremely acid; abrupt smooth boundary.

E—2 to 7 inches; gray (10YR 6/1) and (5YR 5/1) loamy fine sand; single grain; loose; few fine and medium roots; very strongly acid; abrupt wavy boundary.

Bhs—7 to 10 inches; dark reddish brown (5YR 3/3) loamy fine sand; weak fine subangular blocky structure; very friable; common fine and very fine roots; few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation, and few medium faint brown (7.5YR 4/2) iron depletions; very strongly acid; abrupt wavy boundary.

Bs—10 to 18 inches; brown (7.5YR 5/3) loamy fine sand; single grain; loose; few fine and very fine roots; common coarse prominent yellowish red (5YR 5/6) masses of iron accumulation, and common medium faint grayish brown (10YR 5/2) iron depletions; very strongly acid; clear wavy boundary.

BC—18 to 31 inches; brown (10YR 5/3) fine sand, with lenses of loamy fine sand and loamy very fine sand up to 1 inch thick; single grain; loose; common coarse prominent strong brown (7.5YR 5/6) masses of iron accumulation and common medium faint dark grayish brown (10YR 4/2) iron depletions; very strongly acid; gradual wavy boundary.

Cg1—31 to 54 inches; grayish brown (10YR 5/2) sand, with thin lenses of black fine sand; single grain; loose; few fine prominent strong brown (7.5YR 5/8) masses of iron accumulation, and few fine faint gray (10YR 6/1) iron depletions; strongly acid; gradual wavy boundary.

Cg2—54 to 72 inches; gray (10YR 5/1) stratified coarse and medium sand; single grain; loose; 2 percent rock fragments (small gravel); strongly acid.

The thickness of the solum ranges from 18 to 42 inches. Depth to bedrock is more than 60 inches. Rock fragments are generally absent, but can range up to 5 percent by volume. Combined thickness of the Bhs and/or Bh and Bs horizons ranges from 7 to 32 inches thick.

The 0a horizon has hue of 5YR to 10YR, or is neutral, with value of 2 to 3, and chroma of 0 to 4. The organic materials are usually well decomposed plant materials derived predominantly from woody vegetation with a smaller amount from herbaceous.

Figure 43.—Soil profile of the Naumburg series from a hand dug pit, in the town of North Elba, in a spruce-fir forest. Note the excellent expression of spodosol development, a thick gray albic horizon and thick dark reddish brown spodic subsoil horizon, in this sandy soil. The mottled appearance of the subsoil indicates seasonal saturation and translocation of iron.

The rubbed fiber content is less than 15 percent of the volume. An Oe horizon, up to 2 inches thick, may overlie the Oa horizon in some pedons.

Some pedons have an A or Ap horizon that has hue of 5YR to 10YR, value of 2 to 5, and chroma of 1 to 4. Texture of the fine-earth fraction is fine sandy loam, sandy loam, loamy fine sand, or loamy sand. Ap horizons are up to 14 inches thick and have dry color values of 6. Reaction ranges from extremely acid to strongly acid unless limed.

The Eg or E horizon has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 to 3. Texture is similar to the A or Ap horizon. Consistence is friable to loose. Reaction ranges from extremely acid to strongly acid.

Some pedons have a Bh horizon that has hue of 2.5YR to 10YR, value of 2 or 3, and chroma of 1 to 3. Texture of the fine earth fraction ranges from loamy fine sand to sand. Structure is often weak granular or subangular blocky, but some pedons have single grain. Consistence ranges from very friable to loose, and some pedons have up to 35 percent firm or extremely firm parts. Reaction ranges from extremely acid to strongly acid.

The Bhs horizon, where present, has hue of 2.5YR to 10YR, and value and chroma of 2 or 3. The fine-earth fraction ranges from loamy fine sand to sand. Structure is often weak granular or subangular blocky. Reaction ranges from extremely acid to strongly acid.

The Bs horizon has hue of 5YR to 10YR, value of 3 to 5, and chroma of 3 to 6. Texture of the fine-earth fraction is loamy fine sand to sand. Consistence is very friable to loose, but can contain up to 20 percent firm or very firm parts. Reaction ranges from extremely acid to strongly acid.

The BC horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 6. Texture of the fine-earth fraction is loamy fine sand to sand. Consistence is very friable or loose, but some pedons have up to 20 percent firm or very firm parts. Reaction ranges from extremely acid to strongly acid.

The Cg or C horizon have hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture of the fine-earth fraction ranges from loamy fine sand to coarse sand. Reaction ranges from very strongly acid to slightly acid.

Nehasne Series

The Nehasne series consists of moderately deep, well drained soils on summits, shoulders, and backslopes of glaciated hills and ridges in the eastern foothills of the Adirondack High Peaks Region. Nehasne soils formed in loamy sediments deposited by glacial ice, and are underlain by massive marble bedrock. Slopes range from 8 to 35 percent.

Nehasne soils are associated on the landscape with Pyrities, Kalurah, Malone, Typic Endoaquolls, Tunbridge, and Monadnock soils. Pyrities soils are very deep. Kalurah soils are very deep and moderately well drained. Malone soils are very deep and somewhat poorly drained. Typic Endoaquolls soils are very deep and poorly drained. Tunbridge soils are more acid and are underlain by meta-igneous bedrock. Monadnock soils are loamy over sandy or gravelly, very deep, and are more acid.

Typical Pedon of Nehasne loam, in a map unit of Pyrities-Nehasne complex, 15 to 25 percent slopes, rocky, in an idle pasture, town of Crown Point, 100 feet south of a point on North Road that is 3,000 feet west of junction of North Road and Whitehead Road; USGS Crown Point, NY 7.5 minute topographic quadrangle; NAD 1927; lat. 43 degrees 56 minutes 09 seconds N. and long. 73 degrees 33 minutes 07 seconds W.

Ap—0 to 6 inches; very dark grayish brown (10YR 3/2) loam; pale brown (10YR 6/3) dry; moderate fine and medium granular structure; friable; many very fine and fine roots; 7 percent rock fragments; slightly acid; abrupt smooth boundary.

Bw1—6 to 13 inches; dark yellowish brown (10YR 4/4) loam; weak fine and medium subangular blocky structure; friable; common very fine and fine roots; common fine vesicular and tubular pores; 10 percent rock fragments; neutral; clear wavy boundary.

Bw2—13 to 20 inches; dark yellowish brown (10YR 4/6) fine sandy loam; weak fine and medium subangular blocky structure; friable; few very fine and fine roots; few fine vesicular and common fine tubular pores; 10 percent rock fragments; neutral; clear wavy boundary.

C—20 to 25 inches; dark brown (10YR 3/3) gravelly fine sandy loam; massive with plate-like divisions; firm; few fine roots; common fine tubular pores; 20 percent rock fragments; neutral; abrupt irregular boundary.

R—25 inches; marble bedrock.

The thickness of the solum and depth to bedrock range from 20 to 40 inches. Rock fragments, mostly gravel and cobbles, range from 5 to 25 percent in the upper part of the mineral solum and from 20 to 45 percent in the BC horizon and in the C horizon, where present.

The A horizon has hue of 10YR or 7.5YR, value of 2 to 3, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, or loam in the fine-earth fraction. Structure is weak or moderate granular. Consistence is friable or very friable. Reaction is moderately acid or slightly acid.

The Bw horizon has hue of 10YR or 7.5YR, value of 3 or 4, and chroma of 2 to 6. Texture is commonly fine sandy loam and less commonly loam in the fine-earth fraction. Structure is weak or moderate subangular blocky. Consistence is friable or very friable. Reaction is slightly acid or neutral.

The BC horizon has hue of 10YR, value of 3 to 5, and chroma of 3. Texture is

loam, fine sandy loam, or sandy loam in the fine-earth fraction. Structure is weak or moderate subangular blocky, or it is massive. Consistence is friable or very friable. Reaction is neutral or slightly alkaline.

Some pedons have a C horizon with hue of 10YR, value of 3 to 5, chroma of 3. Texture is loam, fine sandy loam, or sandy loam in the fine-earth fraction. Structure is massive. Consistence is friable or firm. Reaction is neutral or slightly alkaline.

Nellis Series

The Nellis series consists of very deep, well drained soils on summits, shoulders, and backslopes of glaciated ridges and on till plains in the Champlain Valley. Nellis soils formed in loamy sediments underlain by firm, loamy, calcareous till. Slopes range from 3 to 25 percent (fig. 44).

Nellis soils are associated on the landscape with Amenia, Bombay, Massena, Kingsbury, Covington, Cayuga, Claverack, and Howard soils. Amenia and Bombay soils are moderately well drained. Massena soils are somewhat poorly drained. Kingsbury and Covington soils are clayey and are somewhat poorly drained and

Figure 44.—Soil profile of the Nellis series from a backhoe test pit, in the town of Essex, in a hay field. This soil on gently sloping landforms is considered to be prime farmland. It has good native fertility, tilth, drainage, and available water. This soil also has few if any limitations for residential development.

poorly drained respectively. Cayuga soils are clayey over loamy and are moderately well drained. Claverack soils are sandy over clayey and are moderately well drained. Howard soils are gravelly and are well drained to excessively drained.

Typical pedon of Nellis fine sandy loam, 8 to 15 percent slopes, in a hay field, in the town of Essex, 500 feet east of the point on Clark Road that is located 500 feet south of the junction of Clark and Cross Roads; USGS Willsboro 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 15 minutes 47 seconds N. and long. 73 degrees 23 minutes 01 seconds W.

Ap—0 to 9 inches, dark brown (10YR 3/3) fine sandy loam, pale brown (10YR 6/3) dry; moderate fine and medium granular structure; very friable; many very fine and fine and few medium roots; common fine and few medium tubular pores, and many fine vesicular pores; 5 percent rock fragments; neutral; abrupt smooth boundary.

Bw1—9 to 16 inches, dark yellowish brown (10YR 4/4) fine sandy loam; weak fine and medium subangular blocky structure; very friable; many fine and very fine and few medium roots; common fine and few medium tubular and many fine vesicular pores; 5 percent rock fragments; neutral; clear wavy boundary.

Bw2—16 to 21 inches, brown (10YR 4/3) fine sandy loam; moderate fine and medium subangular blocky structure; very friable; common very fine and fine roots; common fine and few medium tubular pores, and many fine vesicular pores; 5 percent rock fragments; neutral; clear wavy boundary.

BC1—21 to 26 inches, brown (10YR 5/3) fine sandy loam; massive with thin and medium plate-like divisions; friable; common very fine and fine roots; common fine vesicular and few fine tubular pores; 6 percent rock fragments; neutral; clear smooth boundary.

BC2—26 to 37 inches, 80 percent brown (10YR 5/3), 10 percent yellowish brown (10YR 5/6), and 10 percent brown (7.5YR 4/2) fine sandy loam; massive with medium and thick plate-like divisions; firm; few very fine and fine roots; few fine tubular and common fine vesicular pores; 8 percent rock fragments; few fine faint brown (7.5YR 5/4) soft masses of iron accumulation; neutral; gradual wavy boundary.

C—37 to 60 inches, grayish brown (2.5Y 5/2) fine sandy loam; massive with plate like divisions; firm; few very fine and fine roots; few fine tubular and few fine vesicular pores; 9 percent rock fragments; moderately alkaline, violently effervescent; gradual wavy boundary.

Cd—60 to 80 inches, grayish brown (2.5Y 5/2) fine sandy loam; massive; very firm; 13 percent rock fragments; moderately alkaline, violently effervescent.

The thickness of mineral solum ranges from 15 to 37 inches and depth to carbonates range from 15 to 38 inches. Depth to bedrock is greater than 60 inches. Rock fragments range from 3 to 35 percent by volume in the A horizon, 5 to 35 percent in the B horizon, and 5 to 50 percent in the C horizon. Reaction ranges from moderately acid to neutral in the upper part of the mineral solum, moderately acid to slightly alkaline in the lower part of the solum and neutral to moderately alkaline in the substratum.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 to 4 moist, and value of 4 to 6, chroma of 2 to 5 dry. It ranges from fine sandy loam to silt loam in the fine earth fraction. It has weak or moderate granular structure. Consistence is very friable or friable. Undisturbed areas have an A horizon 2 to 6 inches thick.

The Bw horizon has hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 4. The B horizon ranges from fine sandy loam to silt loam in the fine earth fraction. It has weak or moderate, fine or medium subangular blocky structure except some subhorizons may be massive. Consistence is very friable or friable. Faint redoximorphic features are at the contact between the B and C horizons in some pedons.

The BC or CB horizon has hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 6. Faint redoximorphic features are in some pedons. Texture ranges from fine sandy

loam to silt loam in the fine earth fraction. Structure is weak or moderate subangular blocky or it is massive with or without plate-like divisions. Consistence is friable or firm.

The C horizon has hue of 10YR to 5Y, value of 3 to 7, and chroma of 2 to 6. Chroma 2 is a result of parent material or lithologic origin rather than redoximorphic depletion. Texture is sandy loam, fine sandy loam or loam in the fine earth fraction. Consistence is friable or firm. The C horizon is calcareous and the carbonates are mostly $CaCO_3$. Some pedons have Cd horizons with firm or very firm consistence at 60 inches or below.

Niagara Series

The Niagara series consists of very deep, somewhat poorly drained soils on lacustrine terraces and lake plains in the Champlain Valley. Niagara soils formed in silty clay sediments deposited in still water. Slopes range from 0 to 8 percent.

Niagara soils are associated on the landscape with Dunkirk, Collamer, Kingsbury, Covington, Tonawanda, Farmington, and Amenia soils. Dunkirk soils are well drained. Collamer soils are moderately well drained. Kingsbury soils have higher clay content. Covington soils have higher clay content and are poorly drained. Tonawanda soils have less clay. Farmington soils are loamy, well drained, and are 10 to 20 inches deep to limestone bedrock. Amenia soils are loamy and moderately well drained.

Typical pedon of Niagara silt loam, 0 to 3 percent slopes, in the town of Chesterfield, 1,500 feet east of a point on U.S. Route 9 that is 1,920 feet north of the junction of U.S. Route 9 and Robare Road, in a pasture; USGS Willsboro, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 28 minutes 36 seconds N. and long. 73 degrees 28 minutes 50 seconds W.

Ap—0 to 9 inches, very dark grayish brown (10YR 3/2) silt loam; light brownish gray (10YR 6/2) dry; weak medium and coarse subangular blocky parting to weak medium and fine granular structure; friable; non-sticky, slightly plastic; many very fine roots; neutral; abrupt smooth boundary.

E—9 to 12 inches, brown (10YR 5/3) silt loam; weak thick and medium platy parting to weak fine subangular blocky structure; friable; non-sticky, non-plastic; many very fine roots; few very fine tubular pores; light brownish gray (10YR 6/2) ped faces; common medium and fine distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral; clear smooth boundary.

BE—12 to 18 inches, brown (10YR 5/3) silt loam; moderate fine subangular blocky structure; friable; slightly sticky and slightly plastic; common very fine roots; few very fine tubular pores; few thin clay films on ped faces, grayish brown (10YR 5/2) ped faces; many fine and medium distinct yellowish brown (10YR 5/6) and few fine distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation; neutral; clear wavy boundary.

Bt—18 to 35 inches, brown (10YR 5/3) silty clay loam; moderate coarse prismatic structure parting to moderate thick platy structure; firm, slightly sticky and plastic; common very fine roots along prism faces; few fine tubular pores; common thin clay films on ped faces and in pore linings; grayish brown (10YR 5/2) prism faces with 5 to 10 mm thick yellowish brown (10YR 5/6) borders; 1 percent rock fragments; common medium and fine distinct yellowish brown (10YR 5/6) and few fine distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation, few fine faint grayish brown (10YR 5/2) iron depletions; neutral; clear smooth boundary.

C1—35 to 48 inches, brown (10YR 4/3) silty clay loam; weak coarse prismatic parting to weak thick platy structure; firm; slightly sticky and plastic; few very fine tubular pores; grayish brown (10YR 5/2) prism faces; 3 percent rock fragments; few fine faint light brownish gray (10YR 6/2) iron depletions, common fine distinct dark yellowish brown (10YR 4/6) masses of iron accumulation; slightly alkaline, slightly effervescent; clear smooth boundary.

C2—48 to 72 inches, brown (10YR 4/3) silty clay loam; moderate coarse prismatic parting to weak thick platy structure; firm; slightly sticky and plastic; few very fine and fine tubular pores; grayish brown (10YR 5/2) prism faces; 5 percent rock fragments; common medium and coarse faint brown (10YR 5/3) and common medium and fine distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation; slightly alkaline, slightly effervescent.

The thickness of the solum ranges from 20 to 40 inches. Depth to bedrock is greater than 60 inches. Depth to carbonates ranges from 20 to 50 inches. Rock fragments are generally absent, but can range up to 5 percent by volume. In some pedons that are underlain with till deposits at depths greater than 40 inches, rock fragment content ranges up to 35 percent in the substratum.

The Ap or A horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3, and value of 6 or 7 dry. Texture of the fine-earth fraction is fine sandy loam, very fine sandy loam, loam, or silt loam. Consistence is friable or very friable. Reaction ranges from strongly acid to neutral. Thickness of the Ap horizon ranges from 4 to 10 inches.

The E or Eg horizon has hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 2 to 4. Texture of the fine-earth fraction ranges from fine sandy loam to silt loam. The E horizon is massive, or has weak fine subangular blocky, or thin to thick platy structure. Consistence is friable or very friable. Reaction ranges from strongly acid to neutral.

Some pedons have a BE or BA horizon with colors and textures similar to the A, E, and B horizons.

The Bt horizon has hue of 5YR to 2.5Y, value of 4 or 5, and chroma of 2 to 4 with faint to prominent redoximorphic features. Texture of the fine-earth fraction is very fine sandy loam, silt loam, or silty clay loam with thin subhorizons of finer or coarser textures in many pedons. Structure is subangular or angular blocky with patchy clay skins on faces of peds. Some pedons have coarse or very coarse prismatic or thick platy structure. Consistence is friable or firm. Reaction ranges from moderately acid through slightly alkaline.

Some pedons have a BC horizon up to 12 inches thick with colors and texture similar to the B horizon.

The C horizon has hue of 5YR to 5Y or is neutral, and has value of 3 to 6, and chroma of 0 to 6. Texture of the fine-earth fraction is dominantly very fine sandy loam, silt loam or silty clay loam, but has stratified layers ranging from fine sand to clay. Reaction ranges from neutral to moderately alkaline. Some pedons underlain with till have a 2C horizon.

Nicholville Series

The Nicholville series consists of very deep, moderately well drained soils on lacustrine terraces in intermontane valleys of the Adirondack Uplands. Nicholville soils formed in silt and very fine sand sediments deposited by wind or in still water. Slopes range from 3 to 8 percent.

Nicholville soils are associated on the landscape with Roundabout, Hailesboro, Becket, Fernlake, and Champlain soils. Roundabout soils are somewhat poorly drained. Hailesboro soils are more clayey and are somewhat poorly drained. Becket soils are loamy and well drained. Fernlake soils are sandy and well drained. Champlain soils are sandy and somewhat excessively drained.

Typical pedon of Nicholville silt loam, 3 to 8 percent slopes, in a wooded area, 0.45 miles south on Trout Pond Road from the intersection with Green Street, and 0.32 miles due east into woods; USGS Ausable Forks 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 27 minutes 03 seconds N. and long. 73 degrees 34 minutes 24 seconds W.

Oi—0 to 1 inch; slightly decomposed leaf, needle and twig material.

Ap—1 to 6 inches; very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; weak fine and medium granular structure; very friable; many very fine and fine, common medium and few coarse roots; strongly acid; abrupt smooth boundary.

E—6 to 7 inches; grayish brown (10YR 5/2) silt loam; weak fine subangular blocky parting to weak fine granular structure; very friable; common fine and very fine roots; strongly acid; abrupt smooth boundary.

Bs—7 to 12 inches; brown (7.5YR 5/4) silt loam; weak fine subangular blocky structure; friable; common fine and very fine roots; common very fine tubular pores; strongly acid; clear wavy boundary.

BC—12 to 20 inches; brown (10YR 5/3) silt loam; weak medium and fine subangular blocky structure; friable; common fine and very fine roots; common very fine tubular pores; few fine distinct yellowish brown (10YR 5/6) masses of iron accumulation, common brown (7.5YR 5/4) stains on ped faces, and common medium distinct gray (10YR 6/1) iron depletions in lower part; moderately acid; clear wavy boundary.

C1—20 to 25 inches; grayish brown (10YR 5/2), and light brownish gray (10YR 6/2) very fine sandy loam; massive with thin plate-like divisions; friable; few very fine roots; common fine tubular and common fine and medium vesicular pores; moderately acid; clear wavy boundary.

C2—25 to 38 inches; grayish brown (10YR 5/2) silt loam; massive; friable; few fine tubular and common fine and medium vesicular pores; common faint distinct gray (10YR 6/1) iron depletions; moderately acid; gradual wavy boundary.

C3—38 to 54 inches; grayish brown (2.5Y 5/2) silt loam; massive; friable; few fine tubular and vesicular pores; common fine prominent strong brown (7.5YR 5/6) and yellowish brown (10YR 5/6) masses of iron accumulation; slightly acid; clear wavy boundary.

C4—54 to 72 inches; grayish brown (2.5Y 5/2) very fine sandy loam; massive; very friable; few very fine tubular pores; few fine prominent yellowish brown (10YR 5/6) masses of iron accumulation; neutral.

The thickness of the solum ranges from 12 to 38 inches. Depth to bedrock is greater than 60 inches. Depth to contrasting deposits is greater than 30 inches. Rock fragments, mostly gravel, range from 0 to 10 percent by volume throughout the soil. Redoximorphic features are within a depth of 30 inches.

The A or Ap horizon, where present, has hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 or 3. Texture is silt loam or very fine sandy loam. Consistence is friable or very friable. Reaction ranges from extremely acid to moderately acid, unless limed.

In undisturbed areas, the soil typically has an O horizon, an E horizon, and may also have a Bhs or Bh horizon. These horizons are usually destroyed by plowing.

The E horizon, where present, has hue of 5YR to 10YR, value of 3 to 7, and chroma of 1 to 4. Texture is silt loam or very fine sandy loam. Consistence is friable or very friable. Reaction ranges from extremely acid to moderately acid, unless limed.

The Bhs horizon where present, has hue of 2.5YR to 7.5YR, and value and chroma of 3 or less. The Bh horizon where present, has hue of 2.5YR to 7.5YR, and value and chroma of 4 or less. Texture ranges from loamy very fine sand to silt loam. Consistence is very friable to firm. Reaction ranges from very strongly acid to moderately acid.

The Bs horizons have hue of 5YR or 7.5YR, value of 3 to 6, and chroma of 2 to 4. Texture ranges from loamy very fine sand to silt loam. Consistence is very friable to firm. Reaction ranges from very strongly acid to moderately acid.

The BC horizon, where present, has hue of 10YR to 5Y, value of 4 or 5 and chroma of 3 or 4. It has distinct or prominent redoximorphic features. Texture ranges from very fine sand to silt loam. Reaction ranges from very strongly acid to moderately acid.

The 2C or C horizon has hue of 10YR to 5Y, value of 4 to 6 and chroma of 2 to 4. Texture is very fine sand to silt loam. The horizon is single grain, massive, or has weak platy divisions associated with depositional layers. Consistence is very friable to firm. Reaction ranges from very strongly acid to neutral.

Occum Series

The Occum series consists of very deep, well drained soils on flood plains in the Champlain Valley. Occum soils formed in loamy sediments deposited by floodwaters. Slopes range from 0 to 3 percent (fig. 45).

Occum soils are associated on the landscape with Pootatuck, Rippowam, Windsor, Vergennes, Charlton, and Chatfield soils. Pootatuck soils are moderately well drained. Rippowam soils are poorly drained. Windsor soils are sandy and are excessively drained. Vergennes soils are clayey and are moderately well drained. Charlton soils have higher rock fragment contents throughout the soil. Chatfield soils are 20 to 40 inches deep to meta-igneous bedrock.

Typical pedon of Occum fine sandy loam, 0 to 3 percent slopes, in a corn field, in the town of Essex, adjacent to Boquet River, 200 feet west of a point on Anger Hill Road that is 1 mile south of the junction of Anger Hill Road and Whallons Bay Road. USGS Willsboro 15 minute topographic quadrangle; 44 degrees 15 minutes 02 seconds north latitude, 73 degrees 24 minutes 26 seconds west longitude; NAD 1927.

Ap—0 to 9 inches, dark yellowish brown (10YR 3/4) fine sandy loam; light yellowish brown (10YR 6/4) dry; weak fine granular structure; very friable; many very fine roots; moderately acid; clear smooth boundary.

Bw1—9 to 21 inches, dark yellowish brown (10YR 3/4) fine sandy loam; weak medium subangular blocky structure; very friable; common very fine roots; slightly acid; abrupt smooth boundary.

Bw2—21 to 30 inches, dark brown (10YR 3/3) fine sandy loam; weak medium subangular blocky structure; very friable; few very fine roots; slightly acid; abrupt smooth boundary.

C1—30 to 36 inches, light olive brown (2.5Y 5/4) stratified loamy fine sand, loamy sand, sand, and fine sandy loam; single grain; loose; slightly acid; abrupt smooth boundary.

C2—36 to 72 inches, dark grayish brown (2.5Y 4/2) stratified sand, loamy sand, loamy fine sand, and fine sandy loam; single grain; loose; slightly acid.

The thickness of the solum and depth to the coarse-textured substratum range from 20 to 40 inches. Gravel ranges from 0 to 15 percent by volume in the solum and from 0 to 60 percent in the substratum. Some pedons have up to 10 percent cobbles in the substratum. Unless limed, reaction ranges from very strongly acid to slightly acid.

The A or Ap horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 1 to 4. Texture is very fine sandy loam, fine sandy loam, or sandy loam. The horizon has weak or moderate granular structure and is friable or very friable.

The Bw horizon has hue of 7.5YR to 2.5Y, value of 3 to 8, and chroma of 3 to 6. Texture is commonly fine sandy loam or sandy loam, but the range includes very fine sandy loam or loam in the upper part. Some pedons have thin strata of loam, very fine sandy loam, or silt loam. The Bw horizon has granular or subangular blocky structure, or it is massive. Consistence is friable or very friable. Some pedons have thin Ab horizons.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 7, and chroma of 2 to 6. Some pedons have redoximorphic features below a depth of 4 feet. Texture of individual layers ranges from loamy fine sand to coarse sand in the fine-earth fraction. Included in some pedons are thin loamy and/or extremely gravelly strata. Also, some pedons have a loamy C horizon layer just below the Bw horizon. The C horizon is single

Figure 45.—Soil profile of the Occum series from a river bank cut, in the town of Essex, on the edge of a hay field. Note the banded light and dark alluvial depositional layers. Darker areas indicate stable periods and topsoil development. Occum is a class 1 agricultural soil and prime farmland. Regrettably, it is of small extent in the county.

grain and loose in the sandy part. The loamy part is typically massive and friable. The thickness and number of subhorizons is variable and corresponds to the thickness and variability of the alluvial deposits.

Ondawa Series

The Ondawa series consists of very deep, well drained soils on flood plains in intermontane valleys of the Adirondack Upland. Ondawa soils formed in loamy sediments deposited by floodwaters. Slopes range from 0 to 3 percent.

Ondawa soils are associated on the landscape with Podunk, Rumney, Burnt Vly, Adams, Colton, Monadnock, Becket, and Tunbridge soils. Podunk soils are moderately well drained. Rumney soils are poorly drained. Burnt Vly soils are mucky and very poorly drained. Adams soils are sandy and somewhat excessively drained. Colton soils are gravelly and excessively drained. Monadnock soils are loamy over sandy or

gravelly. Becket soils have a compact, very firm substratum. Tunbridge soils are 20 to 40 inches deep to meta-igneous bedrock.

Typical pedon of Ondawa sandy loam, 0 to 3 percent slopes, in a cropped field, in the town of North Elba, 500 feet west of County Road 21, about .8 miles northeast of junction with New York Route 73; USGS Lake Placid, NY 15 minute topographic quadrangle; NAD 1927; 44 degrees 15 minutes 52 seconds N. and long. 73 degrees 57 minutes 16 seconds W.

Ap—0 to 9 inches, dark grayish brown (10YR 4/2) sandy loam; weak medium granular structure; friable; many fine roots; strongly acid; abrupt smooth boundary.

Bw1—9 to 21 inches, brown (10YR 4/3) sandy loam; weak medium granular structure; very friable; common to many roots; strongly acid; gradual smooth boundary.

Bw2—21 to 34 inches, brown (10YR 5/3) fine sandy loam; weak fine granular structure; very friable; few roots in upper part; strongly acid; clear smooth boundary.

C—34 to 72 inches, pale brown (10YR 6/3) loamy fine sand; single grain; loose; 5 percent fine gravel; strongly acid.

The thickness of the solum and depth to the coarse-textured substratum ranges from 20 to 40 inches. Depth to bedrock is more than 60 inches. Clay content is less than 10 percent, and gravel ranges from 0 to 15 percent in the solum and from 0 to 40 percent in the substratum. Reaction ranges from very strongly acid to slightly acid throughout, unless limed. Some pedons have buried horizons.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 1 to 4. Dry value is 6 or more. Texture is fine sandy loam, sandy loam, or loam. The Ap horizon has weak or moderate, very fine to medium granular structure. Consistence is very friable or friable.

The Bw horizon has hue of 10YR or 2.5Y, with value of 3 to 8, and chroma of 2 to 8. Texture is fine sandy loam, sandy loam, or loam. The Bw horizon has weak or moderate, very fine, fine or medium granular or weak fine and medium subangular blocky structure. Consistence is very friable or friable.

The C horizon has hue of 10YR to 5Y, value of 3 to 7, and chroma of 2 to 6. Texture of individual layers ranges from loamy fine sand to coarse sand in the fine earth fraction. Included in some pedons are loamy and/or extremely gravelly strata. The thickness and number of subhorizons is variable and corresponds to the thickness and variability of the alluvial deposits. The C horizon is single grain and loose in the sandy part. The loamy part is typically massive and friable.

Pittsfield Series

The Pittsfield series consists of very deep, well drained soils on summits, shoulders, backslopes, and footslopes of hills and ridges and on till plains in the Champlain Valley. Pittsfield soils formed in loamy sediments, underlain by friable, calcareous glacial till. Slopes range from 3 to 60 percent.

Pittsfield soils are associated on the landscape with Georgia, Massena, Chatfield, Hollis, Howard, Kingsbury, and Cayuga soils. Georgia soils are moderately well drained. Massena soils are somewhat poorly drained. Chatfield and Hollis soils are 20 to 40 inches and 10 to 20 inches deep respectively to meta-igneous bedrock. Howard soils are gravelly. Kingsbury soils are clayey and somewhat poorly drained. Cayuga soils are clayey over loamy and moderately well drained.

Typical pedon of Pittsfield loam, in a map unit of Pittsfield-Chatfield complex, 3 to 8 percent slopes, rocky, very stony, in the town of Chesterfield, 400 feet northwest of B. Brinton's barn, at the very end of Brinton Road, in a hay field; USGS Willsboro 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 29 minutes 49 seconds N. and long. 73 degrees 25 minutes 45 seconds W.

Ap—0 to 8 inches, dark brown (10YR 3/3) loam, pale brown (10YR 6/3) dry; weak fine and medium granular structure; very friable; many very fine and fine roots; 10 percent rock fragments; very strongly acid; abrupt smooth boundary.

EB—8 to 10 inches, yellowish brown (10YR 5/4) fine sandy loam; weak medium subangular blocky structure; friable; many fine and very fine roots; 10 percent rock fragments; strongly acid; clear broken boundary.

Bw1—10 to 20 inches, yellowish brown (10YR 5/6) gravelly fine sandy loam; weak medium subangular blocky structure; friable; many fine and common medium and coarse roots; 15 percent rock fragments; moderately acid; clear wavy boundary.

Bw2—20 to 24 inches, dark yellowish brown (10YR 4/4) loam; weak medium subangular blocky structure; friable; common very fine and fine, and few medium and coarse roots; 10 percent rock fragments; moderately acid; clear wavy boundary.

Bw3—24 to 30 inches, brown (10YR 4/3) gravelly loam; weak medium and coarse subangular blocky structure; friable; common fine and very fine roots; 15 percent rock fragments; slightly acid; clear irregular boundary.

BC—30 to 45 inches, brown (10YR 4/3) gravelly fine sandy loam; weak thick platy parting to weak coarse and medium subangular blocky structure; friable; common very fine and fine roots; 20 percent rock fragments; slightly acid; clear smooth boundary.

C1—45 to 59 inches, light olive brown (2.5Y 5/4) gravelly fine sandy loam; massive with medium plate-like divisions; friable; common very fine and fine roots in upper part; 20 percent rock fragments; slightly alkaline, slightly effervescent; clear smooth boundary.

C2—59 to 70 inches, grayish brown (2.5Y 5/2) gravelly fine sandy loam; massive with medium plate-like divisions; firm; 15 percent rock fragments; moderately alkaline, violently effervescent.

The thickness of solum ranges from 20 to 45 inches. Bedrock is deeper than 65 inches. Rock fragments consist primarily of schist and weathered limestone. Rock fragments range from 0 to 20 percent in the A horizon and from 5 to 34 percent in the B and C horizons. Cobbles typically occupy 0 to 15 percent of the A, 0 to 10 percent of the B and 0 to 15 percent of the C horizon. Gravel content typically ranges from 0 to 15 percent in the A, from 5 to 15 percent in the B and from 5 to 20 percent in the C horizon. Gravel content in the C horizon can range up to 34 percent but the horizon has less than 35 percent rock fragments. Depth to carbonates ranges from 40 to 72 inches. Reaction ranges from very strongly acid to moderately acid in the A; commonly moderately acid to neutral in the Ap but the range includes very strongly acid; from strongly acid to neutral in the upper part of the B horizon and from moderately acid to neutral in the lower part of the B horizon; and from moderately acid to moderately alkaline in the C horizon. Reaction is less acid than strongly acid and base saturation is more than 60 percent in some part of the 10 to 30 inch depth.

The Ap and A have a hue of 10YR, value of 2 to 4, and chroma of 1 to 3. Texture is loam or fine sandy loam. The horizons have weak or moderate fine and medium granular structure and friable or very friable consistence.

Some pedons have a thin E, EB, or BE horizon below the A horizon. It has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 to 4. Texture is loam or fine sandy loam. Structure is weak fine or medium granular, or weak fine and medium subangular blocky and consistence is friable or very friable.

The Bw horizons have hue of 5YR to 2.5Y, values of 4 or 5 and chroma of 2 to 6. Texture is fine sandy loam or loam. Structure is weak fine or medium granular, or commonly weak fine and medium subangular blocky but the range includes weak coarse subangular blocky. Consistence is friable or very friable.

The BC horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 to 4. Texture is sandy loam, fine sandy loam, loam or gravelly or channery analogs. It is

massive or has weak thick or very thick platy structure. Chroma of 2 is lithochromic and not related to wetness. Some pedons have a few high chroma redoximorphic concentrations in the lower part of the BC horizon.

The C horizons have hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 4. Texture is loam, fine sandy loam, sandy loam, or their gravelly or channery analogs. Pockets or lenses of loamy sand or sand are in some pedons. The C horizon is massive or appears in the form of non-pedogenically derived plates. It is friable or firm.

Pleasant Lake Series

The Pleasant Lake series consists of very deep, very poorly drained soils on broad flood plains and upland depressions of glaciated hills and ridges, and in depressions on deltas and outwash plains in the Adirondack Upland. Pleasant Lake soils formed in deep, saturated, decomposing plant material. Slopes range from 0 to 2 percent.

Pleasant Lake soils are associated on the landscape with Burnt Vly, Rumney, Adams, Monadnock, Becket, Adirondack, and Tahawus soils. Burnt Vly soils are 16 to 51 inches deep to sandy sediments. Rumney soils are loamy and poorly drained. Adams soils are sandy and somewhat excessively drained. Monadnock soils are loamy over sandy or gravelly and well drained. Becket soils are loamy and well drained. Adirondack soils are loamy and somewhat poorly drained. Tahawus soils are sandy.

Typical pedon of Pleasant Lake peat, in a map unit of Pleasant Lake-Burnt Vly complex, 0 to 2 percent slopes, in the town of North Hudson, 0.8 mile southeast on logging road from northernmost stream feeding Boreas Ponds, then 170 feet Southwest from logging road, in a stand of black spruce; USGS Mount Marcy, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees, 2 minutes, 17 seconds N. and long. 73 degrees, 54 minutes, 17 seconds W.

Oi—0 to 4 inches, black (10YR 2/1) broken face and mixed brown (10YR 4/3) and very dark grayish brown (10YR 3/2) rubbed peat (fibric material); 90 percent unrubbed fiber and 75 percent rubbed fiber; massive; very friable; extremely acid; abrupt smooth boundary.

Oa—4 to 5 inches, black (10YR 2/1) broken face and black (5YR 2.5/1) rubbed muck (sapric material); 25 percent unrubbed fiber and 5 percent rubbed fiber; massive; very friable; few fine roots; extremely acid; abrupt smooth boundary.

Oe—5 to 9 inches, reddish brown (5YR 4/3) broken face and dark reddish brown (5YR 3/2) rubbed mucky peat (hemic material); 40 percent unrubbed fiber and 20 percent rubbed fiber; massive; very friable; few fine roots; extremely acid; clear wavy boundary.

O’a1—9 to 31 inches, black (5YR 2.5/1) broken face and very dark gray (5YR 3/1) rubbed muck (sapric material); 10 percent unrubbed fiber and 2 percent rubbed fiber; weak fine subangular blocky structure; very friable; 10 percent woody fragments; extremely acid; clear wavy boundary.

O’a2—31 to 44 inches, dark reddish brown (5YR 3/2) broken face and rubbed muck (sapric material); 25 percent unrubbed fiber and 10 percent rubbed fiber; weak fine subangular blocky structure; very friable; extremely acid; diffuse wavy boundary.

O’e—44 to 53 inches, very dark gray (5YR 3/1) broken face and dark reddish brown (5YR 3/2) rubbed mucky peat (hemic material); 30 percent unrubbed fiber and 20 percent rubbed fiber; massive; very friable; extremely acid; abrupt smooth boundary.

O’i—53 to 66 inches, dark reddish brown (5YR 3/2 and 3/3) broken face and dark reddish brown (5YR 3/2) rubbed peat (fibric material); 75 percent unrubbed fiber and 60 percent rubbed fiber; massive; very friable; extremely acid.

The combined thickness of the organic layers exceeds 51 inches.

The layers in the surface tier consist dominantly of hemic materials, but in some

pedons they are composed of fibric or sapric material. Fibric horizons are dominantly sphagnum moss and have hue of 5YR to 10YR, value of 3 to 5, and chroma of 2 to 6. These layers are derived from herbaceous plants and sphagnum moss. Structure in the surface tier is dominantly platy, but is granular or massive in some pedons. Layers within the control section have a hue of 2.5YR to 2.5Y; value of 2 to 5; and chroma of 0 to 4. Colors commonly become darker on brief exposure to air.

The subsurface and bottom tiers range from platy structure to massive. Reaction throughout the control section ranges from extremely acid to very strongly acid in water (pH less than 4.5 in 0.01M calcium chloride).

Podunk Series

The Podunk series consists of very deep, moderately well drained soils on flood plains in intermontane valleys of the Adirondack Upland. Podunk soils formed in loamy sediments deposited by floodwaters. Slopes range from 0 to 3 percent.

Podunk soils are associated on the landscape with Ondawa, Rumney, Burnt Vly, Adams, Monadnock, Becket, and Tunbridge soils. Ondawa soils are well drained. Rumney soils are poorly drained. Burnt Vly soils are mucky and very poorly drained. Adams soils are sandy and somewhat excessively drained. Monadnock soils are loamy over sandy or gravelly and are well drained. Becket soils are well drained and have a compact substratum. Tunbridge soils are 20 to 40 inches deep to meta-igneous bedrock and are well drained.

Typical pedon of Podunk very fine sandy loam, 0 to 3 percent slopes, in an idle hay field, town of North Elba, 1 mile north on Riverside Drive (Co. Rte. 21) from NY State Route 73, then 50 feet southeast into field; USGS Lake Placid, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 15 minutes 59 seconds N. and long. 73 degrees 57 minutes 04 seconds W.

Ap—0 to 7 inches; very dark grayish brown (10YR 3/2) very fine sandy loam, light brownish gray (10YR 6/2) dry; weak medium and fine granular structure; very friable; many very fine and common fine roots; moderately acid; abrupt smooth boundary.

Bw1—7 to 11 inches; dark yellowish brown (10YR 4/4) very fine sandy loam; weak medium and fine subangular blocky structure; very friable; common fine and very fine roots; strongly acid; clear wavy boundary.

Bw2—11 to 18 inches; yellowish brown (10YR 5/4) fine sandy loam; weak medium and fine subangular blocky structure; very friable; few fine and common very fine roots; few medium distinct gray brown (10YR 5/2) iron depletions and few fine prominent yellowish brown (10YR 5/8) masses of iron accumulation; strongly acid; clear wavy boundary.

C—18 to 31 inches; brown (10YR 5/3) loamy fine sand; massive; very friable; few very fine roots in upper part; common medium and coarse faint grayish brown (10YR 5/2) and common medium faint light brownish gray (10YR 6/2) iron depletions, and common fine distinct yellowish brown (10YR 5/6) masses of iron accumulation; strongly acid; abrupt wavy boundary.

Ab—31 to 34 inches; dark brown (10YR 3/3) very fine sandy loam; massive; very friable; strongly acid; clear wavy boundary.

C'1—34 to 39 inches; brown (10YR 4/3) very fine sandy loam; massive; very friable; common medium and coarse distinct gray (10YR 5/1) and common medium faint grayish brown (10YR 5/2) iron depletions, and common fine prominent yellowish red (5YR 4/6) masses of iron accumulation; strongly acid; gradual wavy boundary.

C'2—39 to 45 inches; brown (10YR 4/3) fine sandy loam; massive; very friable; 2 percent rock fragments; common medium and coarse faint grayish brown (10YR 5/2) iron depletions, and few fine prominent yellowish red (5YR 4/6) masses of iron accumulation; moderately acid; clear wavy boundary.

C’3—45 to 53 inches; brown (10YR 5/3) sand; single grain; loose; 2 percent rock fragments; common medium faint grayish brown (10YR 5/2) and light brownish gray (10YR 6/2) iron depletions, and common medium and fine prominent strong brown (7.5YR 5/8) masses of iron accumulation; moderately acid; abrupt wavy boundary.

C’4—53 to 72 inches; grayish brown (10YR 5/2) sand; single grain; loose; few medium and fine faint light brownish gray (10YR 6/2) iron depletions, and common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; moderately acid; abrupt wavy boundary.

The thickness of the solum and depth to the coarse-textured substratum ranges from 18 to 40 inches. Depth to bedrock is more than 60 inches. Rock fragments in the solum are less than 15 percent of the volume and range from 0 to 40 percent in the substratum.

Reaction ranges from very strongly acid to slightly acid throughout. Some pedons have buried horizons.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 4. Dry value is 6 or 7. Texture is very fine sandy loam, fine sandy loam, sandy loam, or loam. The horizon has weak or moderate, very fine or fine granular structure.

The Bw horizon has hue of 10YR to 5Y, with value and chroma of 2 to 6. Texture is very fine sandy loam, fine sandy loam, sandy loam, or loam. The horizon has weak or moderate very fine or fine granular or subangular blocky structure. Consistence is very friable or friable.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 6. Texture of individual layers ranges from loamy fine sand to coarse sand in the fine-earth fraction. Included in some pedons are thin loamy and/or extremely gravelly strata. Also, some pedons have a loamy C horizon layer just] below the Bw horizon. The C horizon is single grain and loose in the sandy part. The loamy part is typically massive and friable or very friable.

Correlation Note: The PoA map unit have very fine sandy loam textures in the upper solum that are not typical for the range of the Podunk series. This should not significantly affect use and management on a local basis for most purposes.

Pootatuck Series

The Pootatuck series consists of very deep, moderately well drained soils on flood plains in the Champlain Valley. Pootatuck soils formed in loamy sediments deposited by floodwaters. Slopes range from 0 to 3 percent.

Pootatuck soils are associated on the landscape with Occum, Rippowam, Vergennes, Windsor, Chatfield, and Hollis soils. Occum soils are well drained. Rippowam soils are poorly drained. Vergennes soils are clayey. Windsor soils are sandy and are excessively drained. Chatfield and Hollis soils are well drained and are 20 to 40 inches and 10 to 20 inches deep to meta-igneous bedrock respectively.

Typical pedon of Pootatuck fine sandy loam, 0 to 3 percent slopes, in the town of Chesterfield, 1.4 miles west on Burke Road from the Clintonville Bridge, then 400 feet north of road, in a hay field; USGS Ausable Forks, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 27 minutes 28 seconds N. and long. 73 degrees 36 minutes 03 seconds W.

Ap—0 to 5 inches, dark brown (10YR 3/3) fine sandy loam; pale brown (10YR 6/3) dry; moderate fine and medium granular structure; very friable; many fine roots and few medium roots; moderately acid; abrupt smooth boundary.

Bw1—5 to 9 inches, dark yellowish brown (10YR 4/4) sandy loam; weak fine subangular blocky structure; very friable; many fine roots; slightly acid; abrupt wavy boundary.

Bw2—9 to 14 inches, brown (10YR 4/3) fine sandy loam; weak medium subangular blocky structure; very friable; common fine roots; common fine faint brown (7.5YR 4/4) soft masses of iron accumulation; slightly acid; gradual wavy boundary.
Bw3—14 to 21 inches, brown (10YR 4/3 and 5/3) fine sandy loam; weak medium and coarse subangular blocky structure; very friable; few fine roots; common fine distinct dark yellowish brown (10YR 4/6) and brown (7.5YR 4/4) soft masses of iron accumulation, few fine faint grayish brown (10YR 5/2) and light brownish gray (10YR 6/2) iron depletions in the lower part; slightly acid; abrupt wavy boundary.
C1—21 to 32 inches, brown (10YR 5/3) and pale brown (10YR 6/3) loamy fine sand; massive; very friable; few fine roots in upper part; common medium and coarse dark yellowish brown (10YR 4/4 and 4/6) soft masses of iron accumulation, few fine faint light brownish gray (10YR 6/2) iron depletions; slightly acid; clear wavy boundary.
C2—32 to 47 inches, grayish brown (2.5Y 5/2) loamy fine sand; massive; very friable; few medium prominent strong brown (7.5YR 5/6) and common fine and medium distinct dark yellowish brown (10YR 4/4) soft masses of iron accumulation, few fine faint gray (10YR 5/1) iron depletions; slightly acid; gradual wavy boundary.
C3—47 to 72 inches, dark grayish brown (10YR 4/2) loamy sand; single grain; loose; common fine and medium faint brown (10YR 4/3) and few medium prominent dark yellowish brown (10YR 4/6) soft masses of iron accumulation; slightly acid.

The thickness of the solum and depth to the coarse-textured substratum range from 20 to 40 inches. Gravel ranges from 0 to 15 percent by volume in the solum and from 0 to 40 percent in the substratum. Some pedons have up to 15 percent cobbles in the substratum. Unless limed, reaction ranges very strongly acid to slightly acid.

The A or Ap horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 1 to 4. Texture is loam, very fine sandy loam, fine sandy loam, or sandy loam. This horizon has weak or moderate granular structure and is friable or very friable.

The Bw horizon has hue of 10YR to 5Y and value and chroma of 3 to 6. Iron depletions are above a depth of 24 inches. The Bw horizon is dominantly fine sandy loam or sandy loam, but includes thin strata of loam, very fine sandy loam, or silt loam. The horizon has granular or subangular blocky structure, or is massive. Consistence is friable or very friable.

Some pedons have thin Ab horizon strata.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 6. It is typically has redoximorphic features in some subhorizon. Texture of individual layers ranges from loamy fine sand to coarse sand in the fine-earth fraction. Included in some pedons are thin loamy and/or extremely gravelly strata. Also, some pedons have a loamy C horizon layer just below the Bw horizon. The C horizon is single grain and loose in the sandy part. The loamy part is typically massive and friable or very friable. The thickness and number of subhorizons is variable and corresponds to the thickness and variability of the alluvial deposits.

Pyrities Series

The Pyrities series consists of very deep, well drained soils on summits, shoulders, backslopes, and footslopes of glaciated hills and ridges, and on till plains in the eastern foothills of the Adirondack High Peaks Region. Pyrities soils formed in loamy sediments underlain by firm, calcareous lodgment till. Slopes range from 3 to 35 percent.

Pyrities soils are associated on the landscape with Nehasne, Kalurah, Malone, Typic Endoaquolls, Monadnock, and Tunbridge soils. Nehasne soils are moderately deep to marble bedrock. Kalurah soils are moderately well drained. Malone soils are somewhat poorly drained. Typic Endoaquolls soils are poorly drained. Monadnock soils are more acid, and are sandy or gravelly in the substratum. Tunbridge soils are 20 to 40 inches

deep to meta-igneous bedrock, and are more acid.

Typical pedon of Pyrities fine sandy loam, 3 to 8 percent slopes, in a wooded area, town of Essex, 350 feet north of a point on Jersey Street, that is 2,970 feet east of the junction of Jersey Street and Brookfield Road; USGS Willsboro, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 18 minutes 10 seconds N. and long. 73 degrees 26 minutes 10 seconds W.

A—0 to 4 inches; very dark grayish brown (10YR 3/2) fine sandy loam, light brownish gray (10YR 6/2) dry; moderate fine and medium granular structure; friable; many fine and very fine and common medium roots; 5 percent rock fragments; moderately acid; abrupt smooth boundary.

E/B—4 to 7 inches; brown (10YR 5/3) (E part) and yellowish brown (10YR 5/6) (B part) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and very fine and few medium roots; 7 percent rock fragments; moderately acid; clear smooth boundary.

Bw1—7 to 11 inches; yellowish brown (10YR 5/6) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and medium roots; 7 percent rock fragments; slightly acid; clear wavy boundary.

Bw2—11 to 20 inches; dark yellowish brown (10YR 4/6) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and medium roots; 7 percent rock fragments; slightly acid; clear wavy boundary.

BC—20 to 28 inches; light olive brown (2.5Y 5/4) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and few medium roots; 7 percent rock fragments; slightly acid; clear wavy boundary.

C1—28 to 54 inches; olive brown (2.5Y 4/4) sandy loam; massive with medium and thick plate-like divisions; friable; 10 percent rock fragments; neutral; gradual smooth boundary.

C2—54 to 72 inches; grayish brown (2.5Y 5/2) sandy loam; massive with medium and thick plate-like divisions; firm; 10 percent rock fragments; slightly effervescent, moderately alkaline.

The thickness of the solum ranges from 25 to 50 inches. Bedrock is deeper than 60 inches. The depth of free carbonates ranges from 40 to 80 inches. Rock fragments range from 5 to 35 percent by volume in the A and B horizons and from 5 to 50 percent in the C horizon.

The A or Ap horizon has hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 1 to 3. Texture is commonly fine sandy loam and less commonly is silt loam or loam. Structure is weak or moderate, granular or subangular blocky. Consistence is friable or very friable. Reaction ranges from moderately acid to neutral.

Some pedons have an E horizon with hue of 7.5YR or 10YR, value of 5 or 6, and chroma 1 through 3. Texture is fine sandy loam, sandy loam, or loam. Structure is weak or moderate, granular or subangular blocky. Consistence is friable or very friable. Reaction ranges from moderately acid through neutral.

The Bw horizon has hue of 7.5YR or 10YR, value 3 to 5, and chroma of 3 to 6. Texture is commonly fine sandy loam and less commonly sandy loam or loam. Structure is weak or moderate subangular blocky. Consistence is friable or very friable. Reaction ranges from slightly acid to slightly alkaline.

The BC horizon has hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 3 to 6. Texture is fine sandy loam, sandy loam, or loam. Structure is weak or moderate, platy or subangular blocky. Consistence is friable. Reaction ranges from slightly acid through slightly alkaline.

The C horizon has hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 4. Texture is fine sandy loam, sandy loam or loam. Some pedons have thin layers of loamy sand. Structure is massive, or massive with plate-like divisions. Consistence is friable or firm. Reaction ranges from slightly acid to moderately alkaline.

Rawsonville Series

The Rawsonville series consists of moderately deep, well drained soils on summits, shoulders, and backslopes of glaciated mountains, hills, and ridges in the Adirondack Upland. Rawsonville soils formed in loamy sediments deposited by glacial ice and are underlain by meta-igneous bedrock. Slopes range from 3 to 60 percent.

Rawsonville soils are associated on the landscape with Hogback, Knob Lock, Mundalite, Worden, and Wilmington soils. Hogback soils are 10 to 20 inches deep to meta-igneous bedrock. Knob Lock soils are mucky and are 1 to 20 inches deep to meta-igneous bedrock. Mundalite soils are very deep. Worden soils are very deep and somewhat poorly drained. Wilmington soils are very deep and poorly drained.

Typical pedon of Rawsonville loam, in a map unit of Rawsonville-Hogback complex, 35 to 60 percent slopes, very rocky, very bouldery, in a forested area, in the town of Newcomb, approximately 100 feet east of the summit of Catlin Mountain; USGS Santanoni 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 01 minutes 00 seconds N. and long. 74 degrees 13 minutes 56 seconds W.

English units approximate original depths taken in metric for this pedon.

Oi—0 to 1 inch, brown (10YR 4/3) slightly decomposed hardwood and conifer organic debris; about 95 percent fiber, 90 percent rubbed; extremely acid; clear smooth boundary.

Oe—1 to 2 inches, dark reddish brown (5YR 3/2) moderately decomposed plant material; about 70 percent fiber, 60 percent rubbed; many fine and few medium roots; 5 percent cobbles; extremely acid; clear smooth boundary.

A—2 to 3 inches, dark reddish brown (5YR 3/2) loam; weak fine granular structure; very friable; common fine skeletans; many fine roots; 5 percent cobbles; extremely acid; clear broken boundary.

E—3 to 4 inches, dark reddish gray (5YR 4/2) fine sandy loam; weak fine granular structure; very friable; many fine roots; 2 percent gravels and 5 percent cobbles; extremely acid; clear wavy boundary.

Bhs1—4 to 5 inches, dark reddish brown (5YR 2.5/2) fine sandy loam; weak fine subangular blocky parting to weak fine granular structure; friable; few fine skeletans; few fine pores; many fine roots; 2 percent gravels and 5 percent cobbles; extremely acid; clear wavy boundary.

Bhs2—5 to 11 inches, dark reddish brown (5YR 3/2) fine sandy loam; weak fine granular structure; very friable; very few fine skeletans; many fine roots; 3 percent gravels and 5 percent cobbles; very strongly acid; clear wavy boundary.

Bs—11 to 20 inches, dark reddish brown (5YR 3/4); fine sandy loam; weak fine subangular blocky structure; firm; few fine pores; few fine roots; 5 percent gravels and 2 percent cobbles; very strongly acid; clear wavy boundary.

BC—20 to 25 inches, dark yellowish brown (10YR 4/4) fine sandy loam; moderate thin platy structure; brittle; firm; very few fine pores; very few fine roots; 5 percent gravels; common medium distinct strong brown (7.5YR 5/6) and few fine prominent dark red (2.5YR 3/6) mottles; very strongly acid; abrupt wavy boundary.

R—25 inches, meta-anorthosite bedrock.

The thickness of the solum and depth to bedrock range from 20 to 40 inches. Reaction ranges from extremely acid to strongly acid throughout the mineral soil. Rock fragments are mostly gravel, cobbles or channers and range from 0 to 20 percent in the upper part of the solum and 5 to 30 percent in the lower part of the solum.

Some pedons have an A horizon that is neutral or has hue of 5YR to 10YR, value of 2 to 3, and chroma of 0 to 2. Texture is fine sandy loam, very fine sandy loam, silt loam, or loam in the fine-earth fraction.

The E horizon has hue of 5YR to 5Y, value of 3 to 6, and chroma of 1 to 3. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam in the fine-earth fraction.

The Bhs horizon has hue of 2.5YR to 7.5YR with value and chroma of 3 or less.

Some pedons have a Bh horizon that is neutral with value of 2 or less or has hue of 10YR, value of 3 and chroma of 1.

Some pedons have a Bs horizon with hue of 5YR to 10YR, value of 3 or more and chroma of 4 or more. The Bhs, Bs, and Bh horizons are sandy loam, fine sandy loam, very fine sandy loam, silt loam, or loam in the fine-earth fraction. They are moderately or weakly smeary.

The BC horizon has hue of 7.5YR to 5Y value of 3 to 5, and chroma of 2 to 4. Texture is sandy loam, fine sandy loam or very fine sandy loam in the fine-earth fraction.

Some pedons have a C horizon with hue of 10YR to 5Y, value of 3 to 5, and chroma of 2 to 4. Texture is sandy loam, fine sandy loam or very fine sandy loam in the fine-earth fraction.

Bedrock is slightly weathered schist, gneiss, phyllite, granite, or anorthosite.

Ricker Series

The Ricker series consists of very shallow and shallow, well drained to excessively drained soils on summits, shoulders, and backslopes of glaciated mountains, hills, and ridges in the Adirondack High Peaks Area. Ricker soils formed in decomposing plant material, sometimes underlain by a thin (less than 4 inch) mineral soil layer, directly over meta-igneous bedrock. Slopes range from 15 to 80 percent.

Ricker soils are associated on the landscape with Esther, Andic Cryaquods, Wallface, Santanoni, Skylight, and Couchsachraga soils. Esther soils are loamy, very deep, and moderately well drained. Andic Cryaquods soils are loamy, very deep, and somewhat poorly drained. Wallface soils are loamy and are moderately deep to meta-igneous bedrock. Santanoni soils are sandy and gravelly, moderately deep to meta-igneous bedrock, and are somewhat excessively to excessively drained. Skylight and Couchsachraga soils are sandy, and are shallow and very shallow to meta-igneous bedrock respectively.

Typical pedon of Ricker soils, in a map unit of Ricker-Couchsachraga-Skylight complex, 35 to 80 percent slopes, very rocky, very bouldery, in a forested area, in the town of Keene, summit of Allen Mountain, 50 feet north of summit marker; USGS Mount Marcy 15 minute topographic quadrangle; NAD 1927; and lat. 44 degrees 04 minutes 16 seconds N. and long. 73 degrees 56 minutes 24 seconds W.

Oi—0 to 1 inch; slightly decomposed needles and woody fragments.

Oe—1 to 6 inches, black (5YR 2.5/1) broken face and pressed, and dark reddish brown (5YR 2.5/2) rubbed moderately decomposed plant (hemic} material; 75 percent fiber unrubbed, and 30 percent fiber rubbed; moderate fine granular structure; very friable; many fine and common medium roots; extremely acid; clear smooth boundary.

Oa—6 to 11 inches, black (7.5YR 2.5/1) broken face, rubbed, and pressed highly decomposed plant (sapric) material; 20 percent fiber unrubbed, and 5 percent fiber rubbed; moderate fine and medium granular structure; very friable; common fine and few medium roots; up to 10 percent mineral in lower part; extremely acid; abrupt wavy boundary.

R—11 inches, Marcy anorthosite bedrock.

The depth to bedrock ranges from 1 to 20 inches. Very thin mineral layers are at the bedrock interface in most pedons. Rock fragments range from 0 to 50 percent in the mineral layers. The organic material is ultra acid or extremely acid and the mineral layers are extremely or very strongly acid.

The Oi horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 4, and chroma of 0 to 4. It is slightly decomposed leaves, needles, twigs, and moss (fibric material).

The Oe horizon is neutral or has hue of 2.5YR to 10YR, value of 2 or 3, and chroma of 0 to 6. It is moderately decomposed organic matter (hemic material).

The Oa horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 5, and chroma of 0 to 2. It is highly decomposed organic matter (sapric material).

The mineral horizons have hue of 5YR to 5B, value of 2 to 7, and chroma of 1 to 3. They are E, Bh, Bhs, or C horizons. Texture is coarse sand, sand, loamy sand, loamy fine sand, sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam in the fine-earth.

Rippowam Series

The Rippowam series consists of very deep, poorly drained soils on flood plains in the Champlain Valley. Rippowam soils formed in loamy sediments deposited by flood waters. Slopes range from 0 to 3 percent.

Rippowam soils are associated on the landscape with Occum, Pootatuck, Windsor, Deerfield, Vergennes, Kingsbury, and Claverack soils. Occum soils are well drained. Pootatuck soils are moderately well drained. Windsor and Deerfield soils are sandy and are excessively drained and moderately well drained respectively. Vergennes and Kingsbury soils are clayey and moderately well drained and somewhat poorly drained respectively. Claverack soils are sandy over clayey and are moderately well drained.

Typical pedon of Rippowam fine sandy loam, 0 to 3 percent slopes, in the town of Chesterfield, 1.5 miles west on Burke Road from the Clintonville Bridge, to an old house and barn at the end of the road, then 250 feet north of house, in a hay field; USGS Ausable Forks, NY topographic quadrangle; NAD 1927; lat. 44 degrees 27 minutes 25 seconds N. and long. 73 degrees 36 minutes 11 seconds W.

Oe—0 to 2 inches, dark reddish brown (5YR 3/3) and dark brown (7.5YR 3/2) mucky peat; weak fine granular structure; very friable; many fine roots and few medium roots, moderately acid; abrupt smooth boundary.

Ap—2 to 11 inches, very dark gray (10YR 3/1) fine sandy loam; gray (10YR 6/1 dry); weak medium subangular blocky parting to weak fine granular structure; very friable; common fine roots, few medium and coarse roots; less than 1 percent rock fragments; common fine and medium prominent strong brown (7.5YR 4/6) and brown (7.5YR 4/4) soft masses of iron accumulation along root channels; moderately acid; abrupt smooth boundary.

Cg1—11 to 21 inches, light brownish gray (2.5Y 6/2) and gray (10YR 5/1) fine sandy loam, with lenses of loamy fine sand and loamy sand; massive; very friable; common fine and few medium roots; few fine and medium pores; less than 1 percent rock fragments; moderate medium and coarse prominent strong brown (7.5YR 4/6) and many fine prominent dark brown (7.5YR 3/4) soft masses of iron accumulation (total 50 percent of the horizon); slightly acid; clear smooth boundary.

Cg2—21 to 29 inches, gray (10YR 5/1) fine sandy loam, with common lenses of very fine sandy loam; massive; very friable; few fine roots; few fine and medium pores; less than 1 percent rock fragments; common medium and coarse prominent dark reddish brown (5YR 3/3) and light brown (7.5YR 6/4) soft masses of iron accumulation; slightly acid; clear smooth boundary.

Cg3—29 to 36 inches, grayish brown (2.5Y 5/2) fine sandy loam; massive; very friable; few fine roots; few fine and medium pores; less than 1 percent rock fragments; common medium and coarse prominent dark yellowish brown (10YR 4/4 and 4/6) soft masses of iron accumulation; slightly acid; clear smooth boundary.

Cg4—36 to 43 inches, grayish brown (10YR 5/2) fine sandy loam; massive, with some inherited depositional plates; very friable; few fine roots; less than 1 percent rock fragments; few fine distinct dark yellowish brown (10YR 4/4) soft masses of iron accumulation along root channels; slightly acid; clear wavy boundary.

Cg5—43 to 72 inches, dark grayish brown (10YR 4/2) very gravelly loamy sand; single

grain; loose; 40 percent rock fragments; common medium and coarse distinct dark yellowish brown (10YR 4/4) soft masses of iron accumulation; slightly acid.

The thickness of the solum ranges from 20 to 40 inches. The difference between mean summer soil temperature and mean winter soil temperature is at least 25 degrees F. or more. Depth to the coarse-textured substratum layers commonly is from 20 to 40 inches but can range to a depth of 45 inches. Gravel ranges from 0 to 15 percent by volume in the solum and from 0 to 40 percent in the sandy substratum. Some pedons have up to 10 percent cobbles in the coarse-textured substratum. Reaction ranges from very strongly acid to neutral with some subhorizon being moderately acid, slightly acid, or neutral within a depth of 40 inches.

Some pedons have an O horizon that is highly decomposed, moderately decomposed, or slightly decomposed plant material. The horizon has hue of 5YR to 10YR and value and chroma of 3 or less.

The A or Ap horizon has hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 or 2. Texture is very fine sandy loam, fine sandy loam, or sandy loam. It typically has weak or moderate granular structure but some pedons have subangular blocky structure. Consistence is friable or very friable.

The Bg horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2 and typically has redoximorphic features. Texture of the Bg horizon is dominantly fine sandy loam or sandy loam. The Bg horizon is massive or has weak granular or subangular blocky structure. Consistence is friable or very friable.

The BCg horizon, where present, has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 or 4 and typically has redoximorphic features. Texture of the BCg horizon is dominantly fine sandy loam or sandy loam. The BCg horizon is massive or has weak granular or subangular blocky structure. Consistence is friable or very friable.

Included in some pedons are thin Ab horizons with characteristics similar to the A horizon.

The C horizon or layer has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture ranges from loamy fine sand to coarse sand in the fine-earth fraction. The C horizon is typically single grain and loose. Some pedons have thin loamy strata and/or extremely gravelly strata in the lower part of the C horizon.

Correlation Note: The RmA map unit is a taxadjunct to the Rippowam series because the pedon qualifies as not having a Cambic horizon. The classification of the taxadjunct is Coarse-loamy, mixed, superactive, nonacid, mesic Aeric Fluvaquents. This is the former classification of the Rippowam series prior to changes regarding the Cambic horizon in Soil Taxonomy in 1999. The present Rippowam classification is Coarse-loamy, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquepts. This should not significantly affect use and management on a local basis for most purposes.

Roundabout Series

The Roundabout series consists of very deep, somewhat poorly drained soils on lacustrine terraces in intermontane valleys of the Adirondack Uplands. Roundabout soils formed in silt and very fine sand sediments deposited by wind or in still water. Slopes range from 0 to 3 percent.

Roundabout soils are associated on the landscape with Nicholville, Hailesboro, Wegatchie, Becket, Skerry, Kalurah, and Champlain soils. Nicholville soils are moderately well drained. Hailesboro and Wegatchie soils have higher clay content. Becket soils are loamy and well drained. Skerry and Kalurah soils are loamy and moderately well drained. Champlain soils are sandy and somewhat excessively drained.

Typical pedon of Roundabout silt loam, 0 to 3 percent slopes, in a hay field, in the town of Jay, 70 feet southeast of a point on North Jay Road, that is 3,500 feet southwest of the junction of North Jay Road and Hazen Road; USGS Ausable Forks 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 22 minutes 30 seconds N. and long. 73 degrees 41 minutes 02 seconds W.

Ap—0-11 inches, very dark grayish brown (10YR 3/2) silt loam; light brownish gray (10YR 6/2) dry; weak medium subangular blocky structure; friable; common fine and very fine roots; many medium prominent strong brown (7.5YR 4/6) stains along root channels; slightly acid; clear smooth boundary.

Bw—11-19 inches, light olive brown (2.5Y 5/3) very fine sandy loam; weak medium subangular blocky structure; friable; few very fine and fine roots; common medium distinct yellowish brown (10YR 5/6) masses of iron accumulation, common medium distinct grayish brown (2.5Y 5/2) areas of iron depletion; slightly acid; clear smooth boundary.

Bg—19-28 inches; grayish brown (10YR 5/2) very fine sandy loam; weak medium subangular blocky structure; friable; few very fine roots; many medium and coarse prominent reddish brown (5YR 4/4) masses of iron accumulation; slightly acid; gradual smooth boundary.

Cg1—28-42 inches, gray (10YR 6/1) very fine sandy loam; massive, varved; friable; moderate medium and coarse distinct (10YR 4/4) masses of iron accumulation; slightly acid; clear smooth boundary.

Cg2—42-72 inches, dark grayish brown (10YR 4/2) and gray (10YR 6/1) silt loam; massive, varved; firm; common medium prominent black (7.5YR 2.5/1) manganese stains; slightly acid.

The thickness of the mineral solum ranges from 16 to 48 inches. Depth to bedrock is more than 60 inches. Rock fragments, mostly gravel, are less than 5 percent by volume above 40 inches and from 0 to 20 percent below 40 inches. Reaction ranges from very strongly acid to slightly acid in the mineral solum and from moderately acid to neutral in the substratum. Some pedons below 40 inches range to moderately alkaline. Some subhorizon below the Ap horizon, within 20 inches of the mineral soil surface, has chroma of 2 or less with redox concentrations.

The Oa horizon, where present, has hue of 5YR to 10YR, value of 2 to 3, and chroma of 1 or 2. Structure is weak or moderate, very fine to medium granular.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 to 4. It has weak to strong, fine or medium, granular or subangular blocky structure. Undisturbed areas have an A horizon 1 to 6 inches thick that has hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 1 or 2. Dry value for the Ap or A horizon is 6 or 7. It has weak or moderate very fine to medium granular or subangular blocky structure. Texture is silt loam or very fine sandy loam. Consistence is very friable or friable.

Some pedons have an E horizon with hue of 5Y, value of 5 to 7, and chroma of 1 or 2. It has weak or moderate, thin or medium platy, or weak fine granular structure. Texture is silt loam or very fine sandy loam. Consistence is very friable or friable.

The B horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. It has faint to prominent redox concentrations. It is silt loam or very fine sandy loam. Structure is weak or moderate, thin to thick platy, weak or moderate very fine to medium subangular blocky, or weak fine granular. Some pedons have primary structure that is weak coarse or very coarse prismatic. Consistence is friable or firm.

The BC horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. The horizon has faint to prominent redoximorphic features. Texture is silt loam or very fine sandy loam. Structure is weak or moderate, thin to thick platy. Consistence is friable or firm.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 4. It has faint to prominent redoximorphic features. Texture is silt loam or very fine sandy loam

and may have strata that range from silty clay loam to fine sand in some pedons. Below 40 inches some pedons have fine sand and gravelly sand. Structure is weak or moderate, thin to thick platy, weak medium to very coarse prismatic, or the horizon is structureless. Consistence is loose to very firm.

Rumney Series

The Rumney series consists of very deep, poorly drained soils on flood plains in intermontane valleys of the Adirondack Uplands. Rumney soils formed in loamy sediments deposited by flood waters. Slopes range from 0 to 3 percent.

Rumney soils are associated on the landscape with Podunk, Burnt Vly, Colton, Monadnock, Becket, and Tunbridge soils. Podunk soils are moderately well drained. Burnt Vly soils are mucky and very poorly drained. Colton soils are gravelly and excessively drained. Monadnock soils are loamy over sandy or gravelly, and are well drained. Becket soils are loamy and well drained. Tunbridge soils are loamy, well drained, and are 20 to 40 inches deep over meta-igneous bedrock.

Typical pedon of Rumney loam, 0 to 3 percent slopes, in an idle pasture, town of Wilmington, 1,000 feet east of point on Haselton Road, that is 4,600 feet south along Haselton Road from the Clinton County line; USGS Ausable Forks 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 25 minutes 57 seconds N. and long. 73 degrees 44 minutes 52 seconds W.

Ap—0 to 7 inches; very dark grayish brown (10YR 3/2) loam, light brownish gray (10YR 6/2) dry; weak medium subangular blocky parting to weak medium granular structure; friable; many very fine and few fine roots; many fine prominent reddish brown (5YR 4/4) masses of iron accumulation in pore linings; slightly acid; abrupt smooth boundary.

Bw—7 to 12 inches; brown (10YR 4/3) fine sandy loam; weak medium subangular blocky structure; friable; common very fine roots; less than 1 percent pebbles; common fine and medium distinct yellowish brown (10YR 5/6) and common medium faint brown (10YR 5/3) masses of iron accumulation, and common fine faint dark grayish brown (10YR 4/2) iron depletions along pores; moderately acid; clear smooth boundary.

Bg1—12 to 19 inches; dark grayish brown (10YR 4/2) loam; weak coarse and medium subangular blocky structure; very friable; common very fine roots; less than 1 percent pebbles; common medium prominent yellowish brown (10YR 5/6) and common medium faint dark yellowish brown (10YR 4/4) masses of iron accumulation, common fine distinct yellowish brown (10YR 5/4) masses of iron accumulation on pore linings, common fine distinct brown (7.5YR 4/4) soft iron nodules, and few coarse faint dark gray (10YR 4/1) iron depletions; moderately acid; gradual smooth boundary.

Bg2—19 to 30 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak coarse and medium subangular blocky structure; friable; few very fine roots in upper part; less than 1 percent cobbles; common medium and coarse prominent yellowish red (5YR 4/6) masses of iron accumulation and common fine and medium prominent reddish brown (5YR 4/4) iron nodules; slightly acid; clear smooth boundary.

C1—30 to 33 inches; brown (7.5YR 4/4) fine sandy loam; massive; friable; less than 1 percent gravel; common fine and medium faint reddish brown (5YR 4/4) iron nodules and many coarse and medium prominent grayish brown (2.5Y 5/2) iron depletions; slightly acid; abrupt smooth boundary.

C2—33 to 48 inches; grayish brown (10YR 5/2) very gravelly loamy sand; single grain; loose; 35 percent gravels and 5 percent cobbles; after 30 seconds yellowish brown (10YR 5/4) and dark yellowish brown (10YR 4/4) matrix colors; moderately acid; abrupt smooth boundary.

C3—48 to 54 inches; dark gray (5Y 4/1) silt loam; massive; friable, slightly sticky, nonplastic; slightly acid; clear smooth boundary.
C4—54 to 72 inches; gray (10YR 5/1) very gravelly loamy sand; single grain; loose; 40 percent gravels; moderately acid.

The thickness of the solum and depth to the coarse textured substratum ranges from 20 to 40 inches. Depth to bedrock is more than 60 inches. Gravel content ranges from 0 to 15 percent by volume in the solum and from 0 to 40 percent in the substratum. Reaction ranges from very strongly acid to neutral throughout, but some subhorizon within 40 inches of the mineral soil surface is moderately acid to neutral. Some pedons are slightly alkaline below 40 inches. Some pedons have buried horizons.

The Ap, or A horizon where present, has hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 to 3. Dry value is 6 or more. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam. It has weak or moderate, fine or medium granular structure and is very friable or friable. A horizons can have blocky structure.

The B horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. At least one subhorizon within 20 inches of the mineral soil surface has hue of 10YR or 2.5Y, with value of 3 to 5, and chroma of 2. It has common or many, fine to coarse, faint to prominent redoximorphic features. Texture is sandy loam, fine sandy loam, or loam. Some pedons have thin subhorizons of very fine sandy loam in the upper part of the B horizon. The horizon has weak or moderate, very fine to coarse subangular blocky or very fine to medium granular structure, and is very friable or friable.

Some pedons may have a Bw horizon.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 1 to 4. The texture of individual layers ranges from loamy fine sand to coarse sand in the fine-earth fraction. Included in some pedons are loamy and/or extremely gravelly strata. The thickness and number of subhorizons is variable and corresponds to the thickness and variability of the alluvial deposits. The C horizon is single grain and loose in the sandy part. The loamy part is typically massive and very friable or friable.

Santanoni Series

Santanoni soils consist of moderately deep, somewhat excessively drained and excessively drained soils on backslopes of glaciated mountains in the Adirondack High Peaks Area. These soils formed in sandy and gravelly colluvial materials originally deposited by glacial ice, and are underlain by meta-igneous bedrock. Slopes range from 35 to 80 percent.

Santanoni soils are associated on the landscape with Andic Cryaquods, Couchsachraga, Ricker, Esther, Skylight, and Wallface soils. Andic Cryaquods soils are loamy, very deep, and somewhat poorly drained. Couchsachraga soils are sandy and very shallow to bedrock. Ricker soils are organic, shallow or very shallow to bedrock, and are well drained to excessively drained. Esther soils are loamy, very deep, and moderately well drained. Skylight soils are sandy and are moderately deep to bedrock. Wallface soils are loamy, moderately deep to bedrock, and are well drained.

Typical pedon of Santanoni gravelly loamy sand, in a map unit of Santanoni-Skylight complex, 35 to 80 percent slopes, very rocky, very bouldery, in a wooded area, in the town of Wilmington, 2,050 feet east of apex of the lower hairpin curve on Whiteface Memorial Highway toward the upper hairpin curve, and 160 feet south up a landslide scar, on west side of slide scar; USGS Lake Placid, NY topographic quadrangle; NAD 1983; lat. 44 degrees 22 minutes 07.5 seconds N. and long. 73 degrees 54 minutes 19.3 seconds W.

Oe—0 to 2 inches; dark reddish brown (5YR 2.5/2) moderately decomposed (hemic) plant material comprised of sphagnum moss, conifer needles, and roots; weak fine

and medium granular structure; very friable; many very fine and fine, and common medium roots; extremely acid; abrupt wavy boundary.

E—2 to 3 inches; gray (5YR 5/1) gravelly loamy sand; weak fine and medium granular structure; very friable; many fine and very fine, and few medium roots; 20 percent gravel; extremely acid; abrupt wavy boundary.

Bhs1—3 to 7 inches; dark reddish brown (5YR 2.5/2) stony loamy coarse sand; moderate fine and medium granular structure; very friable; strongly smeary; many very fine and fine and common medium roots; 13 percent gravel, 10 percent cobbles, and 5 percent stones; extremely acid; clear wavy boundary.

Bhs2—7 to 14 inches; dark reddish brown (5YR 3/3) very gravelly loamy coarse sand; moderate fine and medium subangular blocky structure; very friable; moderately smeary; common very fine and fine and few medium roots; 30 percent gravel, 10 percent cobbles, and 5 percent stones; extremely acid; gradual wavy boundary.

Bs—14 to 31 inches; reddish brown (5YR 4/4) very gravelly loamy coarse sand; weak medium subangular blocky structure; friable; few very fine and fine roots; 39 percent gravel, 5 percent cobbles, and 15 percent stones; very strongly acid; gradual wavy boundary.

BC—31 to 39 inches; brown; (10YR 4/3) very stony coarse sand; weak medium and coarse subangular blocky structure; friable; 20 percent gravel, 10 percent cobbles, and 5 percent stones; very strongly acid; abrupt wavy boundary.

R—39 inches; Whiteface anorthosite bedrock.

The thickness of the solum and depth to bedrock ranges from 20 to 40 inches from the mineral surface. Rock fragments range from 15 to 50 percent in the upper part of the mineral solum and from 35 to 70 percent in the lower part of the mineral solum, with 35 or greater percent weighted average by volume between a depth of 10 inches and the bedrock contact. Stones and boulders cover from .01 to 15 percent of the surface. Reaction ranges from ultra acid to very strongly acid in the surface and subsurface horizons, and from extremely acid to strongly acid in the subsoil.

The O horizons have hue of 10R to 10YR or are neutral, with value and chroma of 3 or less. It is slightly decomposed (fibric), moderately decomposed (hemic), or highly decomposed (sapric) material. The horizon has weak or moderate, fine or medium granular or subangular blocky structure. Consistence is very friable or friable.

The E horizon has hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 1 or 2. Texture is loamy fine sand, loamy sand, or loamy coarse sand in the fine-earth fraction. It has weak fine or medium granular or subangular blocky structure. Consistence is very friable or friable.

The Bhs horizons, and Bh horizons (where present), have hue of 10R to 7.5YR, with value and chroma of 3 or less. The Bhs and Bh horizons are loamy fine sand, loamy sand, or loamy coarse sand in the fine earth fraction. Thin horizons of sandy loam or coarse sandy loam are present in some pedons. Ortstein is present in less than 50 percent of some horizons. They have weak or moderate, fine, medium, or coarse granular or subangular blocky structure. Some pedons have weak platy structure. Consistence is very friable to firm. Consistence is moderately or strongly smeary.

The Bs horizon has hue of 5YR or 7.5YR, value of 3 to 5, and chroma of 3 or 4. Texture is loamy fine sand, loamy sand, loamy coarse sand, sand, or coarse sand in the fine-earth fraction. They have weak or moderate, fine, medium, or coarse subangular blocky structure, or are single grain. Consistence is very friable, friable, or loose.

The BC horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 3 to 6. Texture is loamy fine sand, loamy sand, loamy coarse sand, sand, or coarse sand in the fine-earth fraction. They have weak or moderate, fine, medium, or coarse subangular blocky structure, or are single grain. Consistence is very friable, friable, or loose.

Bedrock is anorthositic gneiss (metamorphosed anorthosite).

Searsport Series

The Searsport series consists of very deep, very poorly drained sandy soils in depressions on deltas, outwash plains and outwash terraces in the Adirondack Upland. Searsport soils formed in stratified, water deposited sediments. Slope ranges from 0 to 3 percent.

Searsport soils are associated on the landscape with Naumburg, Croghan, Rumney, Burnt Vly, and Monadnock soils. Naumburg soils are somewhat poorly drained. Croghan soils are moderately well drained. Rumney soils are loamy and poorly drained. Burnt Vly soils have deeper muck deposits. Monadnock soils are loamy over sandy or gravelly, and are well drained.

Typical pedon of Searsport peat, in a map unit of Searsport-Haplosaprists-Naumburg complex, 0 to 3 percent slopes, in a wooded area, town of North Elba, 1,000 feet south on old Penn Central rail line from Route 86, then 200 feet west into woods; USGS Saranac Lake 15 minute topographic quadrangle; NAD 44 degrees 18 minutes 07 seconds north latitude, 74 degrees 06 minutes 41 seconds west longitude; NAD 1927.

Oi—0 to 4 inches; very dark brown (10YR 2/2) peat; weak medium granular structure; very friable; few fine, medium, and coarse roots; strongly acid; clear smooth boundary.

Oa—4 to 9 inches; black (10YR 2/1) muck; weak medium granular structure; very friable; few fine, medium, and coarse roots; strongly acid; clear smooth boundary.

A—9 to 14 inches; black (10YR 2/1) mucky sand, gray (10YR 5/1) dry; weak medium granular structure; very friable; strongly acid; clear wavy boundary.

Cg1—14 to 22 inches; dark gray (10YR 4/1) sand; single grain; loose; moderately acid; gradual wavy boundary.

Cg2—22 to 32 inches; gray (10YR 5/1) sand; single grain; loose; very strongly acid; clear wavy boundary.

Cg3—32 to 40 inches; gray (5Y 5/1) loamy fine sand; massive; very friable; slightly acid; clear wavy boundary.

Cg4—40 to 48 inches; gray (5Y 5/1) loamy fine sand; single grain; loose; slightly acid; gradual wavy boundary.

Cg5—48 to 54 inches; gray (5Y 5/1) very fine sandy loam; massive; very friable; slightly acid; gradual wavy boundary.

Cg6—54 to 72 inches; gray (5Y 5/1) stratified fine and medium sand; single grain; loose; slightly acid.

Gravel, by volume, ranges from 0 to 15 percent in the particle-size control section and from 0 to 45 percent below. The soil ranges from extremely acid to slightly acid in the O, A, and E horizon and from very strongly acid to slightly acid in the C horizon.

The Oe horizon is neutral or has hue of 5YR to 5Y, value of 2 to 3, and chroma of 0 to 2. Some pedons have an Oa and/or an Oi horizon.

The A horizon, where present, has hue of 5YR to 5Y, value of 2 to 4, and chroma of 1 or 2. Texture is sand, fine sand, loamy sand, loamy fine sand, sandy loam or fine sandy loam or their mucky analogues. Structure is weak or moderate fine or medium granular or the horizon is single grain. Consistence is friable or very friable.

Some pedons have an Eg horizon that is neutral or has hue of 10YR to 5Y, value of 4 to 7, and chroma of 0 or 1. Texture is sand, fine sand, loamy sand, loamy fine sand, sandy loam or fine sandy loam.

The Cg horizon is neutral or has hue of 10YR to 5Y, value of 4 to 6, and chroma of 0 to 4. Chroma of 3 or 4 is generally below a depth of 30 inches. Redoximorphic features are faint to prominent, few to many, and fine to coarse, or may be absent. The C horizon is loamy fine sand, loamy sand, fine sand, sand or coarse sand in the fine-earth fraction and some pedons are stratified.

Correlation Note: The SeA and 367A map units have components with textures below 40 inches that are finer than typical for the range of the Searsport series. This should not significantly affect use and management on a local basis for most purposes.

Skerry Series

The Skerry series consists of very deep, moderately well drained soils on footslopes of glaciated mountains, hills, and ridges, and on till plains in the Adirondack Upland. Skerry soils formed in loamy sediments underlain by compact, very firm lodgment till. Slopes range from 3 to 15 percent.

Skerry soils are associated on the landscape with Becket, Tunbridge, Adirondack, Tahawus, Burnt Vly, Adams, and Monadnock soils. Becket soils are well drained. Tunbridge soils are 20 to 40 inches deep over meta-igneous bedrock. Adirondack soils are somewhat poorly drained. Tahawus soils are sandy and very poorly drained. Burnt Vly soils are mucky and very poorly drained. Adams soils are sandy and somewhat excessively drained. Monadnock soils are loamy over sandy or gravelly and are well drained.

Typical pedon of Skerry loam, 8 to 15 percent slopes, very bouldery, in a forested area, in the town of Minerva, 300 feet east of a point on Longs Hill Road that is 2,300 south from the junction of Longs Hill Road and O’Neil road; USGS Schroon Lake 15 minute topographic quadrangle; NAD 1927; lat. 43 degrees 47 minutes 33 seconds N. and long. 73 degrees 56 minutes 58 seconds W.

Oi—0 to 2 inch; slightly decomposed leaf, needle, and twig material.

A—2 to 4 inches; black (5YR 2.5/1) loam, moderate fine granular structure; very friable; common fine and very fine and few medium roots; 5 percent rock fragments; strongly acid; clear wavy boundary.

E—4 to 5 inches, gray (7.5YR 6/1) fine sandy loam; weak fine granular structure; very friable; common fine and very fine and few medium roots; 5 percent rock fragments; very strongly acid; clear irregular boundary.

Bhs—5 to 9 inches, dark reddish brown (5YR 3/2) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and very fine and few medium roots; 5 percent rock fragments; very strongly acid; clear wavy boundary.

Bs—9 to 15 inches, dark reddish brown (5YR 3/4) fine sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; 10 percent rock fragments; strongly acid; clear wavy boundary.

BC1—15 to 26 inches, dark yellowish brown (10YR 4/4) gravelly fine sandy loam; weak medium and coarse subangular blocky structure; friable; 15 percent rock fragments; few fine faint reddish brown (5YR 4/4) masses of iron accumulation in lower part; moderately acid; abrupt wavy boundary.

BC2—26 to 38 inches, olive brown (2.5Y 4/3) gravelly fine sandy loam; moderate medium platy structure; firm; 15 percent rock fragments; common medium prominent yellowish red (5YR 4/6) masses of iron accumulation and distinct gray (10YR 6/1) depletions; moderately acid; clear wavy boundary.

Cd—38 to 72 inches, grayish brown (2.5Y 5/2) gravelly loamy fine sand; massive with medium and thick-plate like divisions; firm and brittle; 20 percent rock fragments; common medium prominent yellowish red (5YR 4/6) masses of iron accumulation on surfaces of plate-like divisions; moderately acid.

The thickness of the solum and depth to densic materials ranges from 15 to 38 inches. Rock fragments range from 5 to 30 percent in the solum and from 5 to 40 percent in the substratum. Unless the soil is limed, reaction ranges from extremely acid to slightly acid in the solum and very strongly acid to neutral in the substratum. Weak cementation (ortstein) ranges from 0 to 50 percent in the spodic horizon.

The 0 horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 4, and chroma of 0 to 4.

Some pedons have an A horizon up to 4 inches thick that has hue of 10YR to 5YR, value of 2 to 3, and chroma of 1 or 2, or an Ap horizon that has hue of 10YR, value of 3 or 4, and chroma of 2 to 4. Texture is fine sandy loam, sandy loam, or loam or their gravelly analogues.

The E horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 1 or 2. Texture is fine sandy loam or sandy loam or their gravelly analogues.

The Bhs or Bh horizon has hue of 2.5YR to 7.5YR, value of 2 to 4, and chroma of 1 to 4. Texture is dominantly fine sandy loam, but includes sandy loam or their gravelly analogues.

The Bs horizon has hue of 2.5YR to 10YR, value of 2 to 6, and chroma of 3 to 8. Texture is fine sandy loam or sandy loam, or their gravelly analogues.

The BC horizon, where present, has hue of 10YR to 5Y, value of 3 to 6, and chroma of 2 to 6. Texture is fine sandy loam, sandy loam, loamy fine sand, loamy sand, or their gravelly analogues.

Some pedons have an E' horizon below the B horizon that is up to 2 inches thick. It has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 or 3. Texture range is the same as the lower part of the B, but typically it is coarser textured than the overlying horizon.

The Cd horizon has hue of 10YR to 5Y, value of 4 to 7, and chroma of 2 to 6. It is comprised of loamy layers and sandy lenses with a composite texture of loamy sand, loamy fine sand, fine sandy loam, sandy loam, or their gravelly analogues. The lenses range from loamy fine sand to coarse sand and are 1/8 inch to 2 inches thick. They constitute more than 20 percent of the horizon. The Cd horizon has weak or moderate, thin to thick plates or it is massive. Consistence is firm or very firm except in individual lenses where it is friable to loose.

Some pedons have a friable C horizon above the Cd that is up to 8 inches thick.

Skylight series

The Skylight series consists of shallow, somewhat excessively drained and excessively drained sandy soils on summits, shoulders, and backslopes of glaciated mountains in the Adirondack High Peaks Area. These soils formed in sandy materials deposited by glacial ice or sandy residuum, and are underlain by meta-igneous bedrock. Slope ranges from 15 to 80 percent.

Skylight soils are associated on the landscape with Andic Cryaquods, Esther, Ricker, Santanoni, Couchsachraga, and Wallface soils. Andic Cryaquods soils are loamy, very deep, and somewhat poorly drained. Esther soils are loamy, very deep, and moderately well drained. Santanoni soils are sandy and gravelly and moderately deep to meta-igneous bedrock. Wallface soils are loamy, moderately deep to meta-igneous bedrock, and well drained. Couchsachraga soils are very shallow to meta-igneous bedrock. Ricker soils formed from organic material, are very shallow or shallow to meta-igneous bedrock, and well drained to excessively drained.

Typical pedon of Skylight loamy sand, in a map unit of Ricker-Couchsachraga-Skylight complex, 35 to 80 percent slopes, very rocky, very bouldery, in the town of Keene, approximately 1/2 mile east on the Mt. Colden trail from Lake Colden, at 3,500 feet elevation; USGS Mt. Marcy, NY topographic quadrangle; NAD 1927; lat. 44 degrees 07 minutes 20 seconds N. and long. 73 degrees 58 minutes 08 seconds W.

Oe—0 to 2 inches; dark reddish brown (5YR 2.5/2) moderately decomposed (hemic) plant material comprised of needles, leaves and twigs; weak fine granular structure; very friable; common fine and medium and few coarse roots; extremely acid; gradual wavy boundary.

Oa—2 to 5 inches; black (5YR 2.5/1) highly decomposed (sapric) plant material; weak fine granular structure; very friable; common fine and medium, and few coarse

roots; extremely acid; abrupt wavy boundary. (Combined thickness of the O horizon is 2 to 20 inches.)

E—5 to 9 inches; dark gray (5YR 4/1) loamy sand; few medium prominent yellowish red (5YR 4/6) mottles; weak medium subangular blocky structure; friable; few fine, medium and coarse roots; 1 percent rock fragments (mostly pebbles); extremely acid; clear wavy boundary (1 to 4 inches thick).

Bhs—9 to 15 inches; black (5YR 2.5/1) loamy sand; weak medium subangular blocky structure; friable, moderately smeary; common fine and medium and few coarse roots; 1 percent rock fragments (mostly pebbles); extremely acid; abrupt wavy boundary (4 to 15 inches thick).

R—15 inches; Marcy anorthosite bedrock.

The thickness of the mineral solum and depth to bedrock from the mineral soil surface ranges from 10 to 20 inches. Rock fragment content ranges from 0 to 35 percent by volume throughout the mineral solum. Stones and boulders cover from .01 to 15 percent of the surface. Reaction ranges from ultra acid to very strongly acid in the surface and subsurface horizons, and from extremely acid to strongly acid in the subsoil.

The O horizons have hue of 10R to 10YR or are neutral, with value and chroma of 3 or less. It is slightly decomposed (fibric), moderately decomposed (hemic), or highly decomposed (sapric) material. It has weak or moderate, fine or medium granular or subangular blocky structure. Consistence is very friable or friable.

The E horizon has hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 1 or 2. Texture is loamy fine sand, loamy sand, loamy coarse sand, fine sand, sand, or coarse sand in the fine-earth fraction. It has weak fine or medium granular or subangular blocky structure, or is single grain. Consistence is very friable, friable, or loose.

The Bhs horizons and Bh horizons (where present), have hue of 10R to 7.5YR, with value and chroma of 3 or less. Texture is loamy fine sand, loamy sand, loamy coarse sand, fine sand, sand, or coarse sand in the fine-earth fraction. They have weak or moderate, fine, medium, or coarse granular or subangular blocky structure, or are single grain. Consistence is very friable, friable, or loose. Consistence is moderately or strongly smeary.

Some pedons have a Bs horizon that has hue of 5YR or 7.5YR, value of 3 to 5, and chroma of 3 or 4. Texture is loamy fine sand, loamy sand, loamy coarse sand, sand or coarse sand in the fine-earth fraction. They have weak or moderate, fine, medium, or coarse subangular blocky structure, or are single grain. Consistence is very friable, friable, or loose.

Bedrock is anorthositic gneiss (metamorphosed anorthosite).

Stafford Series

The Stafford series consists of very deep, somewhat poorly drained soils on deltas and beach ridges in the Champlain Valley. Stafford soils formed in stratified, water deposited, sandy sediments. Slopes range from 0 to 3 percent.

Stafford soils are associated on the landscape with Windsor, Deerfield, Gougeville, Cosad, Kingsbury, and Massena soils. Windsor soils are excessively drained. Deerfield soils are moderately well drained. Gougeville soils are poorly drained. Cosad soils are sandy over clayey. Kingsbury soils are clayey. Massena soils are loamy.

Typical pedon of Stafford fine sandy loam, 0 to 3 percent slopes, in an abandoned corner of a corn field, in the town of Willsboro, NY, 1,100 feet east of a point on Middle Road, that is 3,300 feet south of the junction of Middle Road and West Road; USGS Willsboro 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 20 minutes 58 seconds N. long. 73 degrees 23 minutes 12 seconds W.

Ap—0 to 10 inches, very dark grayish brown (10YR 3/2) fine sandy loam; light

brownish gray (10YR 6/2) dry; moderate fine and medium granular structure; friable; common fine and very fine and few medium roots; neutral (limed); abrupt smooth boundary.

Bw—10 to 20 inches, 60 percent pale olive (5Y 6/3) and 40 percent olive gray (5Y 4/2) loamy sand; weak medium subangular blocky structure; friable; common fine prominent dark yellowish brown (10YR 4/6) soft masses of iron accumulation; slightly acid; clear smooth boundary.

Bg—20 to 32 inches, 70 percent gray (10YR 6/1) and 30 percent yellowish brown (10YR 5/4) loamy sand; weak medium subangular blocky structure; friable; common medium prominent strong brown (7.5YR 4/6) areas of iron accumulation, and common medium faint gray (10YR 5/1) areas of iron depletion; neutral; clear smooth boundary.

Cg—32 to 72 inches, gray (10YR 6/1) sand; single grain; loose; common medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral.

The thickness of the solum ranges from 25 to 40 inches. Depth to bedrock is greater than 60 inches. Rock fragments are typically absent, but up to 15 percent fine gravel is present in the C horizon of some pedons. Unless the soil is limed, reaction ranges from very strongly acid to neutral in the A horizon, extremely acid to slightly acid in the B horizon and strongly acid to slightly acid in the C horizon.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3. Texture is fine sandy loam, loamy fine sand or fine sand. Structure is granular and consistence is friable or very friable.

The B horizon has hue of 5YR to 5Y, value of 5 or 6, chroma of 1 to 4, and contains redoximorphic features. At least one subhorizon within 20 inches has a chroma of 2. Texture is loamy sand, loamy fine sand, or fine sand. It has weak granular, subangular blocky, or platy structure or it is massive. The horizon is friable, very friable, or loose. Thin lamellae, more firm than the matrix, are present in the B horizons of some pedons.

The C horizon is neutral, or has hue of 5YR through 5Y, value of 3 through 6, and chroma of 0 or 3. It is fine sand to sand. It is massive or single grain. Consistency is friable to loose.

Correlation Note: The StA map unit has reaction in the lower part that is slightly out of the range of the Stafford series. This should not significantly affect use and management on a local basis for most purposes.

Sun Series

The Sun series consists of very deep, poorly drained soils on toeslopes of glaciated ridges and hills and on till plains in the Champlain Valley. Sun soils formed in loamy sediments underlain by firm, calcareous lodgment till. Slopes range from 0 to 3 percent.

Sun soils are associated on the landscape with Pittsfield, Nellis, Georgia, Amenia, Massena, Chatfield, and Hollis soils. Pittsfield and Nellis soils are well drained. Georgia and Amenia soils are moderately well drained. Massena soils are somewhat poorly drained. Chatfield and Hollis soils are well drained and are 20 to 40 inches deep and 10 to 20 inches deep to meta-igneous bedrock respectively.

Typical pedon of Sun silt loam, 0 to 3 percent slopes, in the town of Essex, 2,600 feet east on Stowersville Road from the intersection with Valley Road, then 800 feet south of Stowersville Road, in a field; USGS Willsboro, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 18 minutes 09 seconds N. and long. 73 degrees 28 minutes 00 seconds west longitude.

Oe—0 to 3 inches, moderately decomposed root and litter material; weak medium granular structure; very friable; many fine and very fine, and common medium roots; slightly acid; clear wavy boundary.

Ap—3 to 11 inches, black (10YR 2/1) silt loam, gray (10YR 6/1) dry; moderate fine and medium granular structure; friable; common fine and few medium roots; 5 percent rock fragments; slightly acid; abrupt wavy boundary.

Bg1—11 to 15 inches, grayish brown (2.5Y 5/2) loam; moderate medium platy structure; friable; few fine roots; 10 percent rock fragments; many medium prominent yellowish brown (10YR 5/6) and common fine prominent strong brown (7.5YR 5/6) soft masses of iron accumulation (total 50 percent of the horizon); slightly acid; clear wavy boundary.

Bg2—15 to 25 inches, gray (10YR 5/1) loam; weak medium and coarse subangular blocky structure; firm; few fine roots; 10 percent rock fragments; common medium distinct dark yellowish brown (10YR 4/4) and common fine prominent strong brown (7.5YR 5/6) soft masses of iron accumulation; slightly acid; clear smooth boundary.

BCg—25 to 40 inches, gray (10YR 6/1) gravelly fine sandy loam; weak medium and coarse subangular blocky structure; friable; 15 percent rock fragments; common medium and coarse prominent yellowish brown (10YR 5/6) and common fine and medium prominent strong brown (7.5YR 5/8) soft masses of iron accumulation; neutral; clear wavy boundary.

Cd—40 to 54 inches, grayish brown (2.5Y 5/2) gravelly sandy loam; massive with moderate thick plate-like divisions; very firm, brittle; 15 percent rock fragments; gray (10YR 5/1 plate exteriors), common medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; slightly alkaline, slightly effervescent; gradual wavy boundary.

C—54 to 72 inches, grayish brown (2.5Y 5/2) gravelly sandy loam; massive with moderate thick plate-like divisions; firm; 15 percent rock fragments; few fine prominent light olive brown (2.5Y 5/6) soft masses of iron accumulation; moderately alkaline, strongly effervescent.

The thickness of the solum ranges from 20 to 40 inches. Depth to bedrock is greater than 60 inches. Depth to carbonates usually ranges from 20 to 70 inches however, some pedons lack carbonates. Rock fragments range in volume from 0 to 35 percent in the solum and from 15 to 50 percent in the substratum, but average less than 35 percent in the control section. These percentages include up to 10 percent greater than 3 inches in the A horizon and up to 15 percent in the B and C horizons. Reaction ranges from strongly acid through neutral in the mineral surface layer, from moderately acid through slightly alkaline in the subsoil, and from neutral to moderately alkaline in the substratum.

The Ap horizon has hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 or 2. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam. Structure is weak or moderate, granular or subangular blocky. Consistence is friable or very friable. In uncultivated areas, the soil may have an O horizon up to 4 inches thick.

Some pedons have an E or BE horizon. They have hue of 5YR o 5Y, value of 3 through 5, and chroma of 2 to 4. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam in the fine-earth fraction. Structure is weak or moderate angular or subangular blocky, platy, or the horizon is massive. Consistence is friable or firm.

The Bg horizon, if present, is neutral or has hue of 10YR to 5Y, or is gley, value of 4 to 6, and chroma of 0 to 2 with chroma restricted to 0 or 1 if the horizon is massive. Redoximorphic concentrations are common or many. The Bg horizon may be absent in pedons having depleted ped face colors. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam. Structure is weak or moderate angular, subangular blocky, platy, or the horizon is massive. Consistence is friable or firm.

Some pedons have a Bw horizon, it has hue of 5YR to 5Y, or is gley, value of 3 to 5, and chroma of 2 to 4. It contains both areas of iron oxide accumulations and areas of iron depletions. Texture of the fine-earth fraction is sandy loam, fine sandy loam, silt loam, or loam. Structure and consistence are the same as the Bg.

The BC or BCg horizon, if present, has a hue of 5YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture of the fine-earth fraction is sandy loam, fine sandy loam, or loam. Structure is subangular blocky, platy, or the horizon is massive. Consistence is friable or firm. Carbonates are present in some pedons.

The Cd horizon has hue of 5YR to 5Y, or is gleyed with hue of 5G, 5GY or 5BG, value is 3 to 6, and chroma of 1 to 4. Texture of the fine-earth fraction is loam, fine sandy loam, or sandy loam. Structure is massive or has plate-like divisions. Consistence is firm or very firm.

Correlation Note: The Sun SuA map unit has a firm C horizon below the Cd that is not within the range of the Sun series. This should not significantly affect the use and management on a local basis.

Sunapee Series

The Sunapee series consists of very deep, moderately well drained soils on footslopes of glaciated hills and ridges and on till plains in the Adirondack Upland. These soils formed in friable loamy sediments deposited by glacial ice. Slopes range from 3 to 15 percent.

Sunapee soils are associated on the landscape with Monadnock, Adirondack, Tahawus, Tunbridge, Croghan, Fernlake, Becket, and Burnt Vly soils. Monadnock soils are loamy over sandy or gravelly and are well drained. Adirondack soils have a dense substratum and are somewhat poorly drained. Tahawus soils are sandy and are very poorly drained. Tunbridge soils are 20 to 40 inches deep to meta-igneous bedrock and are well drained. Croghan soils are sandy. Fernlake soils are sandy and are well drained. Becket soils have a dense substratum and are well drained. Burnt Vly soils are mucky and are very poorly drained.

Typical pedon of Sunapee fine sandy loam, 3 to 8 percent slopes, in the town of North Elba, 0.8 mile East on Old Military Road from NY 86, then 300 feet North on dirt road, then 150 feet East into woods, 20 feet North of the edge of a small meadow. USGS Saranac Lake 15 minute topographic quadrangle; 44 degrees, 17 minutes, 4 seconds north latitude, and 74 degrees, 0 minutes, 36 seconds west longitude; NAD 1927.

Oe—0 to 1 inch, black (10YR 2/1) moderately decomposed forest litter.

A—1 to 4 inches, dark brown (7.5YR 3/2) fine sandy loam; weak fine granular structure; very friable; many fine and very fine and common medium roots; 5 percent rock fragments; very strongly acid; abrupt smooth boundary.

E—4 to 5 inches, brown (7.5YR 5/2) fine sandy loam; massive; very friable; common very fine, fine, and medium roots; 5 percent rock fragments; very strongly acid; abrupt wavy boundary.

Bs1—5 to 7 inches, dark brown (7.5YR 3/4) fine sandy loam; weak fine and medium subangular blocky parting to weak fine granular structure; very friable; common very fine, fine, and medium roots; 5 percent rock fragments; very strongly acid; clear broken boundary.

Bs2—7 to 14 inches, brown (7.5YR 4/4) fine sandy loam; weak fine and medium subangular blocky parting to weak fine granular structure; very friable; common fine and very fine and few medium roots; 10 percent rock fragments; very strongly acid; gradual wavy boundary.

BC1—14 to 19 inches, dark yellowish brown (10YR 4/4) fine sandy loam; weak fine and medium subangular blocky structure; very friable; common fine and very fine roots; 10 percent rock fragments; very strongly acid; clear wavy boundary.

BC2—19 to 31 inches, brown (10YR 5/3) gravelly sandy loam; weak fine and medium subangular blocky structure; friable; few fine and very fine roots; 15 percent rock fragments; common fine prominent strong brown (7.5YR 5/6) soft masses of iron accumulation, and common medium faint grayish brown (10YR 5/2) and few fine light brownish gray faint (10YR 6/2) iron depletions in lower part; strongly acid; gradual wavy boundary.

C—31 to 72 inches, light olive brown (2.5Y 5/3) gravelly loamy sand; massive; friable; 20 percent rock fragments; few fine prominent strong brown (7.5YR 5/6) soft masses of iron accumulation, common medium and coarse faint grayish brown (2.5Y 5/2) iron depletions; strongly acid; gradual wavy boundary.

The thickness of the solum ranges from 18 to 39 inches. Distinct or prominent redoximorphic features are present above 30 inches. Rock fragments range from 5 to 35 percent in the solum and 5 to 55 percent in the substratum. Unless the soil is limed, the solum ranges from extremely acid to strongly acid and the C horizon from extremely acid to moderately acid.

Some pedons have an 0 horizon that is neutral or has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 0 to 2. The horizon has partially, moderately, or highly decomposed plant (fibric, hemic or sapric) material and is up to 5 inches thick.

The A horizon has hue 5YR to 10YR, value of 2 to 3, and chroma of 1 or 2. Some pedons have an Ap horizon that has hue of 10YR, with value and chroma of 2 to 4. The A horizon is fine sandy loam or loam or their gravelly or cobbly analogues.

The E horizon has hue 7.5YR to 2.5Y, value of 4 to 7, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, or loam and their gravelly or cobbly analogues.

The Bhs horizon has hue 2.5YR to 7.5YR and value and chroma of 3 or less.

Some pedons have a Bh horizon that has hue 2.5YR to 7.5YR, value of 2 to 3, and chroma of 1 to 4.

The Bs horizon has hue 5YR to 2.5Y, value 3 to 5, and chroma 3 to 6. Texture is fine sandy loam or sandy loam or their gravelly or cobbly analogues. Consistence is friable or very friable when moist, but ranges from soft to hard when dry.

Some pedons have a BC horizon that has hue 7.5 YR to 5Y, value 4 to 6, and chroma 2 to 6. Texture is fine sandy loam or sandy loam or their gravelly or cobbly analogues. Consistence is friable or very friable when moist, but ranges from soft to hard when dry.

The C horizon has hue 10YR to 5Y, value 4 to 6, and chroma 2 to 4. Texture is fine sandy loam or sandy loam or their gravelly or cobbly analogs. Loamy sand or loamy fine sand or their gravelly or cobbly analogues is below a depth of 30 inches in some pedons. The horizon is massive or has weak platy structure. Consistence is very friable or friable when moist, but ranges from loose to hard when dry.

Tahawus Series

The Tahawus series consists of very deep, very poorly drained soils in depressions on undulating till plains and on toeslopes of glaciated hills and ridges in the Adirondack Upland. Slopes range from 0 to 5 percent.

Tahawus soils are associated on the landscape with Adirondack, Becket, Burnt Vly, Pleasant Lake, Lyman, Monadnock, Skerry, Sunapee and Tunbridge soils. Adirondack soils are loamy and are somewhat poorly drained. Becket soils are loamy and are well drained. Burnt Vly and Pleasant Lake soils are mucky and are very poorly drained. Lyman soils are loamy and are 10 to 20 inches deep over meta-igneous bedrock. Monadnock soils are loamy over sandy and are well drained. Skerry and Sunapee soils are loamy and are moderately well drained. Tunbridge soils are loamy and are 20 to 40 inches deep over meta-igneous bedrock.

Typical pedon of Tahawus peat, in a map unit of Monadnock-Tahawus Complex, 0 to 15 percent slopes, very bouldery, in a wooded area, town of Schroon, 2,000 feet southwest (240 degree azimuth) of northwest corner of Big Pond, in depression between two small hills; USGS Schroon Lake 15 minute topographic quadrangle; NAD 1927; lat, 43 degrees 51 minutes 24 seconds N. and long. 73 degrees 49 minutes 46 seconds W.

Oi—0 to 2 inches; very dark grayish brown (2.5Y 3/2) broken face and rubbed peat (fibric material); 95 percent unrubbed fiber, 90 percent rubbed fiber; massive; very friable; many fine and few medium roots; very strongly acid; abrupt wavy boundary.

Oe—2 to 5 inches; dark reddish brown (5YR 2.5/2) broken face and rubbed mucky peat (hemic material); 70 percent unrubbed fiber, 20 percent rubbed fiber; weak thin platy structure; very friable; many fine and few medium roots; very strongly acid; clear wavy boundary.

Oa—5 to 9 inches; black (5YR 2.5/1) broken face and rubbed muck (sapric material); 10 percent unrubbed fiber, less than 1 percent rubbed fiber; weak medium subangular blocky structure; very friable; few fine roots; very strongly acid; abrupt wavy boundary.

Bg—9 to 17 inches; light brownish gray (2.5Y 6/2) sandy loam; weak medium subangular blocky structure; friable; few fine roots; 12 percent rock fragments; many medium and coarse distinct brown (10 YR 4/3) masses of iron accumulation; moderately acid; clear wavy boundary.

Cg1—17 to 24 inches; gray (2.5Y 5/1) gravelly loamy sand; massive; friable; few fine roots; 30 percent rock fragments; common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation; neutral; gradual smooth boundary.

Cg2—24 to 72 inches; gray (N 5/0) gravelly loamy sand; massive; friable; 25 percent rock fragments; few medium prominent dark yellowish brown (10YR 4/6) masses of iron accumulation; neutral.

The thickness of the solum ranges from 12 to 36 inches. Depth to bedrock is greater than 60 inches. Rock fragments, mainly stones, cobbles, and gravel, range from 5 to 35 percent by volume throughout the soil. Redoximorphic features are within 20 inches of the mineral surface.

The O horizon is neutral or has hue of 5YR to 2.5Y, value of 2 to 3, and chroma of 0 to 2. The horizon is peat, mucky peat, or muck. Structure is weak granular, platy, subangular blocky, or the horizon is massive. Reaction ranges from extremely acid to strongly acid.

Some pedons have an A horizon that is neutral or has hue of 5YR to 2.5Y, value of 2 to 3, and chroma of 0 to 2. Texture is fine sandy loam, sandy loam, loamy fine sand, or loamy sand in the fine earth fraction. Structure is weak granular. Consistence is very friable. Reaction ranges from very strongly acid through slightly acid. It is 0 to 6 inches thick.

Some pedons have an E horizon that is neutral or has hue of 5YR to 2.5Y, value of 4 to 7, and chroma of 0 to 2. Texture and reaction ranges are the same as the A horizon. Structure is weak subangular blocky or the horizon is massive. Consistence is friable or very friable. The horizon is 0 to 4 inches thick.

The B horizon is neutral or has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 0 to 3. Texture is fine sandy loam, sandy loam, loamy fine sand, or loamy sand in the fine earth fraction. Structure is weak subangular blocky or the horizon is massive. Consistence is friable or very friable. Reaction ranges from very strongly acid to slightly acid.

Some pedons have a BC horizon with colors, structure, consistence and reaction similar to the B horizon. Texture is loamy fine sand, loamy sand, or sand. The horizon is 0 to 15 inches thick.

The C horizon is neutral or has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 0 to 4. Texture is loamy fine sand, loamy sand, sand, loamy coarse sand, or coarse sand in the fine earth fraction. Thin layers of fine sandy loam or sandy loam are allowed below a depth of 40 inches from the mineral surface. The C horizon is massive or single grain. Consistence is friable or firm. Reaction ranges from moderately acid to neutral.

Tonawanda Series

The Tonawanda series consists of very deep, somewhat poorly drained soils on lake plains and lacustrine terraces in the Champlain Valley. Tonawanda soils formed in silty sediments deposited in still water. Slopes range from 0 to 3 percent.

Tonawanda soils are associated on the landscape with Niagara, Rippowam, Amenia, Massena, and Factoryville soils. Niagara soils have higher clay contents. Rippowam and Massena soils are loamy. Amenia soils are loamy and moderately well drained. Factoryville soils are sandy and well drained.

Typical pedon of Tonawanda silt loam, 0 to 3 percent slopes, in a hay field, in the town of Chesterfield, 130 feet northwest of a point on Mace Chasm Road, that is .5 miles south of the junction of Mace Chasm Road and Thompson Finney Road; USGS Willsboro, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 28 minutes 42 seconds N. and long. 73 degrees 28 minutes 00 seconds W.

Ap—0 to 9 inches, very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; moderate fine and medium granular structure; friable; many fine and very fine and common medium roots; slightly acid; abrupt smooth boundary.

Bw—9 to 14 inches, brown (10YR 4/3) silt loam; moderate medium subangular blocky structure; friable; few very fine and fine roots; common medium faint light brownish gray (10YR 6/2) iron depletions and common medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; slightly acid; clear smooth boundary.

Bg—14 to 22 inches, grayish brown (10YR 5/2) silt loam; weak medium subangular blocky parting to moderate medium granular structure; friable; few fine and very fine roots; many medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral; clear smooth boundary.

Cg—22 to 72 inches, dark grayish brown (10YR 4/2) silt loam; massive with weak medium plate-like divisions; firm; common medium faint grayish brown (10YR 5/2) iron depletions and common medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral.

The thickness of the solum ranges from 16 to 40 inches. Rock fragments range from 0 to 2 percent in the solum and 0 to 15 percent in the substratum. Reaction ranges from very strongly acid to neutral in the surface layer, strongly acid to neutral in the subsoil, and from moderately acid to slightly alkaline in the substratum. Below a depth of 40 inches from the surface, some pedons range to moderately alkaline and are effervescent.

The Ap horizon has hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 to 3. Texture is silt loam, silt, very fine sandy loam or loam. Some pedons have a thin A horizon or AB horizon.

The B horizon has hue of 5YR to 5Y, value of 4 to 6, and chroma of 1 to 4. The matrix has a chroma of 3 or greater immediately below the A or Ap or to a depth of greater than 10 inches below the mineral surface. Texture is silt loam, loam, silt, very fine sandy loam, or loamy very fine sand. Thin layers, 1 to 3 inches thick, of sand or gravelly sand, and silty clay loam are in some pedons. Structure is weak or moderate, very fine to medium, granular or subangular blocky. Some B horizons have prismatic structure. Consistence is very friable to firm.

The C horizon has hue of 5YR to 5Y, value of 4 to 6, and chroma of 1 to 6. Texture is silt loam, loam, silt, or very fine sandy loam. Thin strata of sand to fine sandy loam or silty clay loam are in some pedons. It is massive or has plate-like divisions. Consistence is loose to firm.

Tunbridge Series

The Tunbridge series consists of moderately deep, well drained soils on summits, shoulders, and backslopes of glaciated hills, ridges, and mountains in the Adirondack Upland. Tunbridge soils formed in loamy sediments deposited by glacial ice and are underlain by meta-igneous bedrock. Slopes range from 3 to 60 percent.

Tunbridge soils are associated on the landscape with Becket, Monadnock, Lyman, Knob Lock, Adirondack, Skerry and Tahawus soils. Becket and Monadnock soils are very deep. Lyman soils are 10 to 20 inches deep to meta-igneous bedrock. Knob Lock soils are mucky and are 1 to 20 inches deep to meta-igneous bedrock. Adirondack soils are very deep and somewhat poorly drained. Skerry soils are very deep and moderately well drained. Tahawus soils are sandy, very deep, and very poorly drained.

Typical pedon of Tunbridge sandy loam, in a map unit of Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky, very bouldery, in the town of Elizabethtown, on International Paper property north of Mineville, in a road cut about 1 mile past gate; USGS Elizabethtown, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees, 7 minutes, 54 seconds N. and long. 73 degrees, 32 minutes, 8 seconds W.

Oi—0 to 1 inch, slightly decomposed forest litter; many fine and very fine roots.

Oa—1 to 3 inches, highly decomposed forest litter (sapric material); many fine and very fine and few coarse roots.

E—3 to 4 inches, dark grayish brown (10YR 4/2) sandy loam; weak fine granular structure; very friable; common very fine roots; 10 percent rock fragments; very strongly acid; abrupt smooth boundary.

Bh—4 to 7 inches, dark reddish brown (5YR 2.5/2) fine sandy loam; weak very fine granular structure; very friable; many fine and very fine few coarse roots; 10 percent rock fragments; very strongly acid; clear wavy boundary.

Bhs—7 to 13 inches, dark brown (7.5YR 3/3) fine sandy loam; weak very fine granular structure; very friable; many fine and very fine few coarse roots; 10 percent rock fragments; very strongly acid; clear wavy boundary.

Bs—13 to 18 inches, brown (7.5YR 4/4) fine sandy loam; weak fine granular structure; very friable; common fine and very fine roots; 10 percent rock fragments; very strongly acid; abrupt smooth boundary.

C—18 to 27 inches, light olive brown (2.5Y 5/4) gravelly sandy loam; massive; friable; few fine roots; 15 percent rock fragments; strongly acid.

R—27 inches, meta-igneous bedrock.

The thickness of the solum ranges from 14 to 38 inches. The depth to bedrock ranges from 20 to 40 inches. Reaction ranges from extremely acid to moderately acid in the solum and from strongly acid to slightly acid in the substratum. Rock fragments are mostly gravel, channers, and cobbles and range from 5 to 35 percent throughout the soil. The thickness of spodic horizon (Bh, Bs, and Bhs horizon, where present) ranges from 4 to 16 inches and is weakly smeary or not smeary. The silt content in the solum and substratum is typically less than 50 percent. The fine-earth is typically fine sandy loam, sandy loam, very fine sandy loam or loam, but horizons of silt loam are allowed. Stony and bouldery phases of the Tunbridge series are recognized.

Some pedons have Oi, Oe, and/or Oa horizons overlying the A horizon. Combined thickness of the O horizons is 0 to 5 inches thick.

The A horizon is neutral or has hue of 5YR to 10YR, value of 2 to 5, and chroma of 0 to 4. Texture is typically loam, very fine sandy loam, fine sandy loam or sandy loam in the fine-earth fraction but includes silt loam.

Some pedons have an Ap horizon that has hue of 5YR to 10YR, value of 2 to 4, and chroma of 2 to 4. Textures are similar to the A horizon.

The E horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 1 or 2. Texture is typically loam, very fine sandy loam, fine sandy loam, sandy loam or loamy fine sand in the fine-earth fraction but includes loamy fine sand and silt loam.

Some pedons have a BE horizon that has hue of 5YR to 10YR, value of 4 to 6, and chroma of 2 to 4. Textures are similar to the E horizon.

The Bh horizon, where present, is neutral or has hue of 5YR to 10YR. The horizon typically has value of 2 or 3, and chroma of 0 to 2, but higher values and chromas are allowed.

The Bs horizon, where present, has hue of 5YR to 2.5Y, value and chroma of 4 or more.

Some pedons have a Bhs horizon that has hue of 5YR to 10YR, value and chroma of 3 or less. The horizon is up to 6 inches thick.

Some pedons have a BC horizon with hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 3 to 8. The horizon is up to 12 inches thick.

The B horizons are typically loam, very fine sandy loam, fine sandy loam or sandy loam in the fine-earth fraction but includes silt loam.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 to 6. Texture is typically loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction but includes silt loam.

Bedrock is slightly weathered schist, gneiss, phyllite, or granite.

Typic Endoaquolls

Typic Endoaquolls consist of very deep, poorly drained soils formed in loamy glacial till. These soils are on depressions of glacial moraines and upland basins. Slopes range from 0 to 2 percent.

Typic Endoaquolls soils are in a drainage sequence with the well drained Pyrities soils, the moderately well drained Kalurah soils, and the somewhat poorly drained Malone soils. Other associated soils include the Nehasne, Monadnock, Tunbridge and Champlain soils. The Nehasne and Tunbridge soils are well drained and moderately deep to bedrock. Monadnock soils are well drained. Champlain soils are sandy and somewhat excessively drained.

Typical pedon of Typic Endoaquolls, in the town of Pierrepont, St. Lawrence County, 0.7 mile SW on Noyes Road from the intersection with Parmenter Road, to power line, then 170 feet SE along power line path, then 25 feet north of path in opening in brush; USGS Colton, NY 7.5 minute topographic quadrangle; NAD 1927; lat. 44 degrees 36 minutes 22 seconds N. and long. 74 degrees 59 minutes 49 seconds W.

Ap—0 to 10 inches; very dark brown (10YR 2/2) loam, grayish brown (10YR 5/2) dry; weak medium and fine granular structure; very friable; common fine and medium roots; 5 percent rock fragments (gravels and cobbles); slightly acid; clear wavy boundary.

Bg1—10 to 15 inches; grayish brown (10YR 5/2) sandy loam; weak fine subangular blocky structure; friable; few fine roots; 12 percent rock fragments (gravels and cobbles); common medium faint light brownish gray (10YR 6/2) areas of iron depletion, few fine prominent yellowish brown (10YR 5/8) and common medium distinct yellowish brown (10YR 5/4) areas of iron accumulation; neutral; clear wavy boundary.

Bg2—15 to 24 inches; grayish brown (10YR 5/2) sandy loam; weak thick platy parting to weak medium subangular blocky structure; friable; 12 percent rock fragments (gravels and cobbles); common medium distinct dark yellowish brown (10YR 4/4) and common medium faint brown (10YR 5/3) areas of iron accumulation (some plate faces are light brownish gray (10YR 6/2)); neutral; clear wavy boundary;

C—24 to 72 inches; grayish brown (10YR 5/2) sandy loam; massive; friable; 12 percent rock fragments (gravels and cobbles); common medium faint gray (10YR 6/1) areas of iron depletion, and common medium distinct yellowish brown (10YR 5/4) and common fine prominent strong brown (7.5YR 5/6) areas of iron accumulation; slightly alkaline, slightly effervescent.

Depth to free carbonates ranges from 17 to 36 inches. Rock fragments of mixed lithology comprise 3 to 15 percent of the volume of the series control section and C horizon but in some pedons rock fragment range to 20 percent in the C horizon. The mollic epipedon ranges from 8 to 20 inches in thickness. The series control section averages between 8 to 18 percent clay and 50 to 70 percent sand. Some pedons have an 0 horizon less than 4 inches thick.

The A horizon has hue of 10YR to 5Y, or is neutral, value of 2 or 3, and chroma of 1 to 2. It has redoximorphic features in some pedons. Texture is sandy loam, fine sandy loam, loam, or its mucky modifier. Reaction is slightly acid or neutral.

The B horizon has hue of 10YR to 5Y, value of 4 or 5, and chroma of 1 or 2. Some pedons have chroma of 3 in the lower part. It has faint to prominent redoximorphic features in all parts. Texture is sandy loam, or loam. Reaction is slightly acid to slightly alkaline. A BC horizon is in some pedons.

The C or Cg horizon has hue of 10YR to 5Y, value of 5 or 6, and chroma of 1 to 3. It has faint to prominent redoximorphic features. Reaction is slightly acid to moderately alkaline. The horizon has 6 to 20 percent calcium carbonate equivalent.

Correlation Note: The TeA map unit is at the Taxon above Family. It was intended to be the Runeberg series. While it fits the classification of the Runeberg series, the properties of the Minnesota based series do not fit the Essex County climate, elevation, water table, and permeability.

Udifluvents

Udifluvents consist of very deep, excessively drained to moderately well drained soils formed in alluvium recently deposited by streams. Udifluvents are on the most actively flooded areas of the flood plain along major and secondary streams in the county. Sediments are typically loamy, sandy, or sandy skeletal. Slopes range from 0 to 3 percent. Udifluvents are in areas of the flood plain immediately adjacent to streams. Scouring, cutting, lateral erosion, changing stream channels and redeposition of sediments during frequent flooding are responsible for the variability in composition and properties of Udifluvents.

Udifluvents occur in a complex with the somewhat poorly drained to very poorly drained Fluvaquents soils, and are mapped in both the frigid and mesic areas of the county. They are commonly near Ondawa, Occum, Podunk, Pootatuck, Lovewell, Cornish, Rumney, Rippowam, Charles, Medomak, and Burnt Vly soils. The frigid Ondawa and mesic Occum soils are well drained. The frigid Podunk and mesic Pootatuck soils are moderately well drained. The frigid Rumney and mesic Rippowam soils are poorly drained. The frigid Burnt Vly soils are organic over sandy and are very poorly drained. The frigid and moderately well drained Lovewell, somewhat poorly drained Cornish, poorly drained Charles, and very poorly drained Medomak soils are silty.

Although these soils are highly variable, an example of the loamy phase is provided here. Pedon of Udifluvents, in a map unit of Fluvaquents-Udifluvents complex, frequently flooded, 0 to 3 percent slopes in a wooded area, in the town of Elizabethtown, Elizabethtown Fish & Game Club Property, 1,400 feet north of the junction of the club road and the Elizabethtown-Wadhams road; USGS Elizabethtown 15 minute topographic quadrangle; NAD 1983; lat. 44 degrees 13 minutes 54.5 seconds N. and long. 73 degrees 34 minutes 14.3 seconds W.

C—0 to 4 inches, light olive brown (2.5Y 5/3) loamy fine sand; single grain; loose; common fine and very fine, and few medium roots; neutral; abrupt wavy boundary.

Ab—4 to 6 inches, very dark gray (2.5Y 3/1) fine sandy loam; weak fine granular structure; very friable; many fine and very fine, and common medium roots; slightly acid; abrupt wavy boundary.

Cb—6 to 10 inches, 80 percent olive brown (2.5Y 4/3) and 20 percent very dark olive brown (2.5Y 3/3) fine sandy loam; massive; very friable; common fine and very fine, and few medium roots; slightly acid; abrupt wavy boundary.

A’b—10 to 12 inches, very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; very friable; common fine and very fine, and few medium roots; slightly acid; abrupt wavy boundary.

C’b—12 to 24 inches, 60 percent dark brown (10YR 3/3) and 40 percent light olive brown (2.5Y 5/3) fine sandy loam; massive; friable; common fine and very fine, and few medium roots; slightly acid; abrupt wavy boundary.

A”b—24 to 28 inches, very dark grayish brown (2.5Y 3/2) fine sandy loam; weak fine and medium subangular blocky structure; very friable; common fine and very fine, and few medium roots; moderately acid; abrupt wavy boundary.

C”b—28 to 34 inches, 70 percent olive brown (2.5Y 4/3) and 30 percent very dark grayish brown (2.5Y 3/2) loamy fine sand; single grain; loose; common fine and medium, and few coarse roots; moderately acid; abrupt wavy boundary.

A’”b—34 to 38 inches, very dark grayish brown (10YR 3/2) fine sandy loam; weak fine and medium subangular blocky structure; very friable; common fine and medium, and few coarse roots; moderately acid; abrupt wavy boundary.

C1—38 to 44 inches, 70 percent olive brown (2.5Y 4/3) and 30 percent very dark grayish brown (2.5Y 3/2) fine sandy loam; massive; friable; common fine and medium, and few coarse roots; moderately acid; clear wavy boundary.

C2—44 to 56 inches, dark olive brown (2.5Y 3/3) fine sandy loam; massive; friable; common fine and medium, and few coarse roots; moderately acid; abrupt wavy boundary.

C3—56 to 72 inches, variegated but dominantly dark brown (10YR 3/3) very gravelly coarse sand; single grain; loose; 50 percent gravel; moderately acid.

Generally the surface layer is 3 to 15 inches thick. The depth to bedrock is more than 60 inches.

The surface layer has hue of 10YR to 5Y, value of 3 to 5, and chroma of 1 to 6. Texture is very fine sandy loam to coarse sand, and their gravelly or very gravelly analogs. Rock fragments range from 0 to 70 percent. Reaction is strongly acid to neutral.

The substratum has hue of 10YR to 5Y, value of 3 to 5, and chroma of 1 to 6. Some pedons have redoximorphic features below 20 inches. Texture is very fine sandy loam through coarse sand, and their gravelly or very gravelly analogs. Structure is massive. Rock fragments range from 0 to 70 percent. Reaction is strongly acid to neutral.

Correlation Note: Included in the FuA map unit are some areas of frigid soils. This should not affect use and management of this map unit.

Udorthents

Udorthents consist of very deep, excessively drained to somewhat poorly drained soils or soil material on small to large man-made hills adjacent to inactive open pit and shaft mining operations, or on small closed landfills, reclaimed industrial sites, borrow pits, or construction sites throughout the county. Udorthents material consists of pulverized rock debris that is a result of ore mining, processing, and deposition by man, or this is local soil material sometimes mixed with, and overlies construction and

demolition debris and/or refuse. In many cases, silty or loamy soil material brought in from another source and spread for reclamation purposes overlies the disturbed material. Slopes range from 0 to 60 percent.

Included and associated soils are highly variable, and reflect the location in the county and soils directly adjacent to the disturbed areas. Mine spoil, abandoned landfill, sand and gravel pits, and abandoned industrial sites are commonly reclaimed at least in part by soil material found near the site. Reclamation material may be sandy, loamy, or clayey. These soils are named above the series level in the soil classification system because of variability in the material and a lack of soil features that would permit more detailed classification.

Typical pedon of Udorthents, 0 to 60 percent slopes, on an excessively drained man-made terrace reclaimed from mine spoil and planted to mixed grasses, in the town of Newcomb, 2,000 feet east of bridge across Hudson River to McIntyre Development, on first terrace above, and just west of entry road; USGS Santanoni, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 02 minutes 36 seconds N. and long. 74 degrees 03 minutes 04 seconds W.

A—0 to 5 inches; dark brown (10YR 3/3) silt loam; weak fine and medium granular structure; friable; many fine and very fine roots; 2 percent gravel; slightly acid; clear smooth boundary.

C—5 to 9 inches; yellowish brown (10YR 5/4) silt loam; massive with weak thin plate-like divisions; friable; common very fine and few fine roots; 2 percent gravel; slightly acid; abrupt smooth boundary.

2C—9 to 72 inches; dark gray (10YR 4/1) extremely gravelly loamy sand; single grain; loose; 60 percent gravel, 20 percent cobbles, 5 percent stones; neutral.

The thickness of the solum generally ranges from 0 to 20 inches. Depth to bedrock is typically greater than 72 inches. Rock fragments are highly variable in the reclamation material if present, but are typically less than 20 percent by volume. Rock fragments in the mine spoil material are typically greater than 35 percent by volume. Fill material underlying old industrial or urban sites range from 0 to 70 percent rock fragments by volume and can include construction and demolition debris as well as local geologic sources.

The A horizon, where present, typically has hue of 7.5YR to 5Y, and value and chroma of 2 or 3. Texture is typically dependent on the source of the reclamation material or the surface texture of the spoil or fill material and is highly variable, but typically ranges from clay to coarse sand in the fine earth fraction. Reaction typically ranges from moderately acid to slightly alkaline.

The C horizon, where present, typically has hue of 7.5YR to 5Y, value of 4 or more, and chroma of 1 or more. Texture is typically dependent on the source of the reclamation material or local fill material, and is highly variable, but typically ranges from clay to coarse sand. Reaction typically ranges from moderately acid to neutral.

The 2C horizon, or C horizon if there has been no reclamation efforts, typically has hue of 7.5YR to 5Y, value of 3 or more, and chroma of 1 or more. Texture typically ranges from loamy sand to coarse sand for mine spoil in the fine earth fraction, clay to coarse sand for reclaimed borrow, sand, gravel, and industrial site areas, and layers of refuse and other buried waste material in old landfill sites. Reaction typically ranges from slightly acid to strongly alkaline.

Vergennes Series

The Vergennes series consists of very deep, moderately well drained soils on lake plains in the Champlain Valley. Vergennes soils formed in clayey sediments deposited in still water that was fresh or brackish. Slopes range from 3 to 45 percent (fig. 46).

Figure 46.—Soil profile of the Vergennes series from a road cut, in the town of Westport, on the edge of a hay field. Note the well developed angular blocky structure in the upper subsoil, coarse prismatic structure in the lower subsoil, and depositional lamination in the dark brown substratum. This soil has very high clay content, but is a good agricultural soil if managed properly. It has high native fertility and good available water, but tillage can be a problem on these soils. Because of the high clay content, very slow internal drainage, and high shrink-swell potential, this soil presents serious problems for most residential uses.

Vergennes soils are associated on the landscape with Kingsbury, Covington, Livingston, Cayuga, Amenia, Charlton, Chatfield, and Farmington soils. Kingsbury soils are somewhat poorly drained. Covington soils are poorly drained. Livingston soils are very poorly drained. Cayuga soils are clayey over loamy. Amenia soils are loamy. Charlton soils are loamy and well drained. Chatfield soils are loamy, well drained, and are 20 to 40 inches deep to meta-igneous bedrock. Farmington soils are loamy, well drained, and are 10 to 20 inches deep to limestone bedrock.

Typical pedon of Vergennes silty clay loam, 3 to 8 percent slopes, in a corn field, in the town of Crown Point, NY; 50 feet north of the point on Burdick Road located 1 mile east of the junction of Burdick Road and State Route 9N; USGS Crown Point 7.5 minute topographic quadrangle; NAD 1927; lat. 43 degrees 59 minutes 08 seconds N. and long. 73 degrees 26 minutes 13 seconds W.

Ap—0-8 inches, dark grayish brown (10YR 4/2) silty clay loam; weak medium and coarse subangular blocky structure parting to weak fine granular; friable; slightly sticky and slightly plastic; common fine and medium and few coarse roots; neutral; abrupt smooth boundary.

B/E—8-10 inches, 88 percent brown (10YR 5/3) and 12 percent grayish brown (10YR 5/2) clay; weak fine subangular blocky structure; friable; moderately sticky and plastic; common fine and medium roots; common fine vesicular and few fine tubular pores; very thin discontinuous clay films in pores; many fine and medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral; clear wavy boundary.

Bt—10-22 inches, brown (10YR 4/3) clay; ped surfaces are brown (10YR 5/3); moderate fine and medium subangular blocky structure; friable; very sticky and

very plastic; common fine and medium and few coarse roots; many fine vesicular and few fine and medium tubular pores; thin discontinuous clay films on ped surfaces and pore linings; common fine and medium distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation and few fine faint light brownish gray (10YR 6/2) iron depletions in lower part; neutral; clear smooth boundary.

BC—22-29 inches, 50 percent dark grayish brown (10YR 4/2) and 50 percent brown (10YR 4/3) silty clay; weak very coarse prismatic parting to moderate fine and very fine subangular blocky structure; friable; very sticky and very plastic; few fine, medium and coarse roots; many fine vesicular and few fine and medium tubular pores; thin discontinuous clay films on ped surfaces; common fine prominent dark yellowish brown (10YR 4/6) soft masses of iron accumulation; ped surfaces are grayish brown (10YR 5/2); slightly alkaline, slightly effervescent; gradual wavy boundary.

C1—29-37 inches, 50 percent dark grayish brown (10YR 4/2) and 50 percent brown (10YR 4/3) silty clay; weak coarse prismatic structure parting to moderate fine and medium angular blocky; firm, very sticky and very plastic; few fine and medium coarse roots; common fine vesicular and few fine tubular pores; common coatings of light gray (10YR 7/2) CaCO3 on prism surfaces; common fine prominent dark yellowish brown (10YR 4/6) soft masses of iron accumulation; ped surfaces are gray (10YR 5/1); moderately alkaline, strongly effervescent; gradual wavy boundary.

C2—37-45 inches, brown (10YR 4/3) silty clay; weak coarse prismatic structure parting to weak fine and medium angular blocky; firm, very sticky and very plastic; few fine roots; 2 percent pebbles; common fine vesicular and few fine tubular pores; common light gray (10YR 7/2) nodules of CaCO3; few medium faint dark yellowish brown (10YR 4/4) soft masses of iron accumulation; ped surfaces are gray (10YR 6/1); moderately alkaline, strongly effervescent; gradual wavy boundary.

C3—45-77 inches, variegated grayish brown (10YR 5/2) gray (5Y 5/1) and brown (10YR 4/3) clay; moderate very coarse prismatic structure parting to moderate coarse angular blocky; firm, very sticky and very plastic; few fine roots; 2 percent pebbles; few fine vesicular and tubular pores; light gray (10YR 7/2) carbonate nodules; few fine prominent dark yellowish brown (10YR 4/6) soft masses of iron accumulation; ped surfaces are gray (10YR 5/1); moderately alkaline, strongly effervescent.

The thickness of solum ranges from 14 to 40 inches. Depth to bedrock is greater than 60 inches. Rock fragments range from 0 to 2 percent. Reaction ranges from very strongly acid to neutral in the upper part of the solum and moderately acid to slightly alkaline in the lower part. The C horizon is moderately alkaline. Depth to free carbonates ranges from 18 to 40 inches.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 1 to 4. The A horizon is clay, silty clay, silty clay loam, or silt loam.

Some pedons have an E horizon which has hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 2 or 3. The E horizon is clay, silty clay, silty clay loam, or silt loam.

The B/E horizon has colors and textures similar to the Bt and E horizons.

The Bt horizon has hue of 7.5YR to 5Y, value of 3 to 5, and chroma of 1 to 4. Texture is clay.

Some pedons have a BC horizon.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 5, and chroma of 1 to 4. Texture is clay with silt and silty clay varves.

Wallface Series

Wallface soils consist of moderately deep, well drained soils on summits, shoulders, and backslopes of glaciated mountains in the Adirondack High Peaks Area. These soils

formed in loamy materials deposited by glacial ice, and are underlain by meta-igneous bedrock. Slopes range from 15 to 35 percent.

Wallface soils are associated on the landscape with Andic Cryaquods, Couchsachraga, Ricker, Esther, Skylight, and Santanoni soils. Andic Cryaquods soils are very deep and somewhat poorly drained. Couchsachraga soils are sandy, very shallow to bedrock, and somewhat excessively drained and excessively drained. Ricker soils are organic, shallow or very shallow to bedrock, and are well drained to excessively drained. Esther soils are very deep and moderately well drained. Skylight soils are sandy, moderately deep to bedrock, and somewhat excessively drained and excessively drained. Santanoni soils are sandy and gravelly, moderately deep to bedrock, and somewhat excessively drained and excessively drained.

Typical pedon of Wallface loamy sand, in a map unit of Wallface-Skylight complex, 15 to 35 percent slopes, very rocky, very bouldery, in a wooded area, in the town of North Elba; about .4 miles due east of Scott Pond, at end of pass; USGS Santanoni 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 09 minutes 02 seconds N. and Long. 74 degrees 01 minutes 46 seconds W.

Oe—0 to 4 inches, dark reddish brown (5YR 2.5/2) moderately decomposed (hemic) plant material; weak fine granular structure; friable; many fine and medium, and common coarse roots; 2 percent gravels and 1 percent stones; extremely acid; gradual wavy boundary.

Oa—4 to 9 inches, black (5YR 2.5/1) highly decomposed (sapric) plant material; weak fine granular structure; friable; many fine and medium, and common coarse roots; 3 percent gravels and 1 percent stones; extremely acid, clear wavy boundary. (Combined thickness of the O horizons is 6 to 20 inches.)

E—9 to 10 inches; dark reddish gray (2.5YR 4/1) loamy sand; weak fine granular structure; friable; common fine and few medium roots; 3 percent gravels and 2 percent stones; extremely acid; clear wavy boundary. (1 to 5 inches thick)

Bhs1—10 to 18 inches; reddish black (2.5YR 2.5/1) loam; weak fine and medium granular structure; friable; common fine and few medium roots; 3 percent gravels and 2 percent stones; extremely acid; gradual wavy boundary.

Bhs2—18 to 25 inches; dark reddish brown (5YR 2.5/2) sandy loam; weak medium subangular blocky structure; friable; few fine roots; 5 percent gravels and 4 percent stones; very strongly acid; clear wavy boundary.

Bhs3—25 to 35 inches; dark reddish brown (5YR 3/2) gravelly sandy loam; weak medium subangular blocky structure; friable; 24 percent gravels and 4 percent stones; very strongly acid; clear wavy boundary (Combined thickness of the Bhs horizons is 10 to 25 inches).

BC—35 to 38 inches; brown (10YR 4/3) fine sandy loam; weak medium subangular blocky structure; friable; 10 percent gravels and 4 percent stones; very strongly acid; abrupt wavy boundary (0 to 10 inches thick).

R—38 inches; Marcy anorthosite bedrock.

The thickness of the solum ranges from 20 to 39 inches from the mineral surface. Rock fragment content ranges from 5 to 35 percent by volume throughout the soil. Stones and boulders cover from .01 to 15 percent of the surface. Reaction ranges from ultra acid to very strongly acid in the surface and subsurface horizons, and from extremely acid to strongly acid in the subsoil.

The O horizons have hue of 10R to 10YR or are neutral, with value and chroma of 3 or less. This horizon is slightly decomposed (fibric), moderately decomposed (hemic), or highly decomposed (sapric) plant material. The horizon has weak or moderate, fine or medium granular or subangular blocky structure. Consistence is very friable or friable.

The A horizon (where present), has hue of 7.5YR to 2.5Y, value of 2 to 3, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, or coarse sandy loam in the fine-earth fraction. Structure is weak or moderate, fine or medium granular. Consistence is very friable or friable.

The E horizon has hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, coarse sandy loam, loamy fine sand or loamy sand in the fine-earth fraction. This horizon has weak fine or medium granular or subangular blocky structure. Consistence is very friable or friable.

The Bhs horizons and Bh horizons (where present), have hue of 10R to 7.5YR, with value and chroma of 3 or less. The Bhs and Bh horizons are loam, fine sandy loam, sandy loam, and coarse sandy loam. Ortstein is present in less than 50 percent of some horizons. The horizons have weak or moderate, fine, medium, or coarse granular or subangular blocky structure, and some pedons have weak platy structure. Consistence is very friable to firm. It is moderately or strongly smeary.

The Bs (where present) horizon has hue of 5YR or 7.5YR, value of 3 to 5, and chroma of 3 or 4. It is fine sandy loam, sandy loam or coarse sandy loam in the fine-earth fraction. They have weak or moderate, fine, medium, or coarse subangular blocky structure, and some pedons have weak platy structure. Consistence is very friable to firm.

The BC horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 3 to 6. Texture is fine sandy loam, sandy loam or coarse sandy loam in the fine-earth fraction. They have weak or moderate, fine, medium, or coarse subangular blocky structure, and some pedons have weak platy structure. It is friable to firm.

Bedrock is anorthositic gneiss (metamorphosed anorthosite).

Wegatchie Series

The Wegatchie series consists of very deep, poorly drained soils in level or depressional areas on lake plains and in basins on uplands. Wegatchie soils formed in silty clay sediments deposited in still water. Slopes range from 0 to 3 percent.

Wegatchie soils are associated on the landscape with Depeyster, Hailesboro, Burnt Vly, Searsport, Nicholville, Roundabout, and Monadnock soils. Depeyster soils are moderately well drained. Hailesboro soils are somewhat poorly drained. Burnt Vly soils are very poorly drained and are organic. Searsport soils are very poorly drained and sandy. Nicholville and Roundabout soils are silty and are moderately well drained and somewhat poorly drained respectively. Monadnock soils are loamy and well drained.

Typical pedon of Wegatchie silt loam, 0 to 3 percent slopes, in a meadow, St. Lawrence County, New York; town of Hammond, 40 feet west of Oak Point Road and 4,200 feet south of the junction of Oak Point Road and River Road; USGS Morristown NY topographic quadrangle; NAD 1927; lat. 44 degrees 30 minutes 00 seconds N. and long. 75 degrees 44 minutes 30 seconds W.

Ap—0 to 8 inches; very dark gray (10YR 3/1) silt loam, grayish brown (10YR 5/2) dry; weak medium and coarse subangular blocky structure parting to fine and medium granular; friable; slightly sticky; common fine and few medium roots; few fine prominent dark brown (7.5YR 3/4) masses of iron oxides; neutral; abrupt smooth boundary.

Bg1—8 to 13 inches; gray (10YR 5/1) clay loam; moderate fine and medium subangular blocky structure; friable; common fine roots; common fine tubular and vesicular pores; few macropores; few faint silt coats on faces of peds; common fine faint grayish brown (2.5Y 5/2) and light brownish gray (2.5Y 6/2) areas of iron depletions, and many fine and medium prominent brown (7.5YR 4/4) masses of iron oxides; neutral; abrupt smooth boundary.

Bg2—13 to 19 inches; dark gray (10YR 4/1) silty clay loam, gray (10YR 5/1) faces of peds; moderate very fine, fine and medium angular blocky structure; friable; few fine roots; common fine vesicular and tubular pores; few macropores; few faint silt coats on faces of peds; many fine and medium prominent brown (7.5YR 5/4) and strong brown (7.5YR 4/6) masses of iron oxides; neutral; abrupt smooth boundary.

BCg—19 to 40 inches; dark gray (10YR 4/1) silt loam, grayish brown (10YR 5/2) faces of peds; moderate coarse prismatic structure; firm; few fine roots on faces of prisms; many fine and medium tubular and vesicular pores; common fine prominent strong brown (7.5YR 5/8) and many medium prominent yellowish brown (10YR 5/6) masses of iron oxides; slightly alkaline; abrupt smooth boundary.

C—40 to 72 inches; yellowish brown (10YR 5/6) silt loam; weak medium plates breaking along depositional planes; firm; many medium distinct gray (10YR 6/1) silt loam varves; 10 percent rock fragments; slightly effervescent, slightly alkaline.

The thickness of the solum ranges from 20 to 40 inches. Bedrock is at depths greater than 60 inches. The depth to carbonates ranges from 20 to 60 inches. Rock fragments, mostly gravel, range from 0 to 2 percent by volume in the solum and from 0 to 10 percent in the C horizon. Unless the soil is limed, reaction ranges from moderately acid through neutral in the surface layer, from slightly acid to slightly alkaline in the subsoil, and from neutral to moderately alkaline in the substratum.

The Ap horizon is neutral or has hue of 10YR, value of 2 or 3, and chroma of 0 to 2. Texture of the fine-earth fraction is silt loam, very fine sandy loam, or loam.

The B horizon is neutral or has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 0 to 2. Texture of the fine-earth fraction is silt loam, silty clay loam, clay loam, or very fine sandy loam.

The BC horizon is neutral or has hue of 7.5YR to 5Y, value of 4 or 5, and chroma of 0 to 2. Texture of the fine-earth fraction is similar to the B horizon.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 1 to 6; chroma of 3 to 6 is restricted to depths greater than 30 inches. Texture of the fine-earth fraction is very fine sandy loam, silt loam, clay loam, or silty clay loam and it is commonly varved.

Whallonsburg Series

The Whallonsburg series consists of very deep, very poorly drained soils in depressions on lake plains in the Champlain Valley. Whallonsburg soils formed in deep, saturated, decomposing plant material overlying clayey sediments (fig. 47). Slopes range from 0 to 2 percent.

Whallonsburg soils are associated on the landscape with Kingsbury, Covington, Livingston, Windsor, and Rippowam soils. Kingsbury soils are clayey and somewhat poorly drained. Covington soils are clayey and poorly drained. Livingston soils are clayey and very poorly drained. Windsor soils are sandy and excessively drained. Rippowam soils are loamy and poorly drained.

Typical pedon of Whallonsburg mucky peat, 0 to 2 percent slopes, in the town of Crown Point, 3,000 feet south of the intersection of Factoryville Road and Russell Street, 540 feet east of Factoryville Road, in a woodland swamp; USGS Crown Point, NY 7.5 minute topographic quadrangle; NAD 1983; lat. 43 degrees 57 minutes 30 seconds N. and long. 73 degrees 26 minutes 42 seconds W..

Oe—0 to 2 inches, dark reddish brown (5YR 3/3) hemic material; 70 percent unrubbed fiber, 30 percent rubbed fiber; weak medium granular structure; friable; many fine, common medium, and few coarse roots; slightly acid; abrupt smooth boundary.

Oa1—2 to 12 inches, black (N 2.5/0) sapric material; 40 percent unrubbed fiber, 12 percent rubbed fiber; weak medium granular structure; friable; many fine, common medium, and few coarse roots; slightly acid; clear smooth boundary.

Oa2—12 to 20 inches, black (10YR 2/1) sapric material; 30 percent unrubbed fiber, 5 percent rubbed fiber; weak fine granular structure; very friable; few fine roots; slightly acid; gradual smooth boundary.

Oa3—20 to 23 inches, dark brown (7.5YR 3/2) sapric material; 30 percent unrubbed fiber, 5 percent rubbed fiber; weak fine granular structure; very friable; slightly acid; abrupt smooth boundary.

2Cg1—23 to 30 inches, gray (5Y 5/1) silty clay loam; massive; friable; slightly sticky, slightly plastic; few medium prominent yellowish brown (10YR 5/4) masses of iron accumulation; neutral; gradual smooth boundary.

2Cg2—30 to 72 inches, gray (5Y 5/1) silty clay loam; massive; friable; slightly sticky, slightly plastic; neutral.

The depth to the clayey 2C horizon ranges from 16 to 51 inches. Reaction in the organic layers ranges from very strongly acid to neutral in 0.01M calcium chloride. The pH value is 4.5 or more (in 0.01M calcium chloride) in one or more layers of organic soil materials within the control section. Woody fragments occur throughout the profile in most pedons consisting of twigs, branches, logs or stumps, and range from 0 to 30 percent by volume in the control section. Fragments range from 3/4 inch to more than a foot in diameter.

The surface tier has hue of 5YR to 2.5Y or is neutral, value of 2 to 3, and chroma of 3 or less. It is dominantly muck (sapric material); however, some pedons have surface layers of peat (fibric material) or mucky peat (hemic material). The structure of the surface tier is weak or medium, coarse to fine granular or subangular blocky, or is massive.

The organic part of the subsurface and bottom tiers have hue of 5YR to 2.5Y or is neutral, value of 2 to 3 and chroma of 4 or less. Chroma or value or both may change from 0.5 to 2 units upon rubbing. Broken faces become darker upon brief exposure to air. The layer is dominated by sapric material with a rubbed fiber content of less than 17 percent of the organic volume. The subsurface tier has granular or blocky structure

Figure 47.—Soil profile (exhumed) of the Whallonsburg series from a hand dug hole, in the town of Crown Point, in a small hardwood swamp. Note the abrupt contact between the black and dark brown mucky layers overlying the blue-gray clayey substratum. Areas made up of these soils qualify as wetlands.

or is massive. The unrubbed, well-decomposed organic material resembles woody plant tissue.

The 2Cg horizon has hue of 5Y, 2.5Y, 10YR, 10B, or is neutral, value of 3 to 6 and chroma of 0 to 3. Texture ranges from silty clay loam to clay and averages more than 35 percent clay. Some pedons have thin strata of silt or silt loam material. It is massive or varved, and friable or firm. Reaction ranges from strongly acid to moderately alkaline. In some pedons it is slightly or strongly effervescent.

Wilmington Series

The Wilmington series consists of very deep, poorly drained soils in depressions on toeslopes and footslopes of glaciated mountains in the Adirondack Upland. Wilmington soils formed in loamy sediments underlain by compact, firm lodgment till. Slopes range from 0 to 10 percent.

Wilmington soils are associated on the landscape with Ampersand, Mundalite, Rawsonville, Hogback, and Knob Lock soils. Ampersand soils are somewhat poorly drained. Mundalite soils are well drained. Rawsonville soils are 20 to 40 inches deep to meta-igneous bedrock and well drained. Hogback soils are 10 to 20 inches deep to meta-igneous bedrock and are well drained. Knob Lock soils are organic, 1 to 20 inches deep to meta-igneous bedrock, and are well drained to excessively drained.

Typical pedon of Wilmington gravelly sandy loam, in a map unit of Ampersand-Wilmington complex, 0 to 15 percent slopes, very bouldery, in a wooded area, town of Lewis, 600 feet south of a point on Wells Hill Road near Big Slash Mountain, that is 1,150 feet east of the upper crossing of Wells Hill Road and Spruce Mill Brook; USGS Ausable Forks, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 16 minutes 48 seconds N. and long. 73 degrees 39 minutes 34 seconds W.

Oi—0 to 3 inches; dark brown (7.5YR 3/2) fibric material, dominantly sphagnum; 95 percent fiber unrubbed, 80 percent rubbed; weak fine granular structure; very friable; many fine and medium roots; very strongly acid; clear wavy boundary.

Oe—3 to 5 inches; dark brown (7.5YR 3/2) hemic material; 60 percent fiber unrubbed, 20 percent rubbed; weak fine granular structure; very friable; many fine and very fine, common medium roots; very strongly acid; clear wavy boundary.

Oa—5 to 7 inches; black (7.5YR 2.5/1) sapric material; 15 percent fiber unrubbed, 2 percent rubbed; weak fine and medium granular structure; very friable; many fine and very fine, common medium roots; 1 percent cobbles; very strongly acid; abrupt wavy boundary.

E—7 to 9 inches; brown (7.5YR 5/2) gravelly sandy loam; weak fine and medium subangular blocky structure; friable; few fine vesicular pores; few fine and medium roots; 15 percent gravel; few fine prominent yellowish red (5YR 4/6) soft masses of iron accumulation; very strongly acid; clear irregular boundary.

Bh—9 to 14 inches; very dark gray (7.5YR 3/1) and dark brown (7.5YR 3/2) sandy loam; weak medium subangular blocky structure; friable, moderately smeary; few fine tubular and vesicular pores; few fine and medium roots; 10 percent gravel; common fine prominent yellowish red (5YR 4/6) soft masses of iron accumulation and few fine and medium distinct brown (7.5YR 5/2) iron depletions; very strongly acid; clear wavy boundary.

Bhs—14 to 19 inches; dark reddish brown (5YR 3/3 & 3/2) gravelly sandy loam; weak medium subangular blocky structure; friable, moderately smeary; few fine vesicular pores; few fine roots; 20 percent gravel; common medium distinct brown (7.5YR 5/2) iron depletions; very strongly acid; clear wavy boundary.

Cdg—19 to 72 inches; grayish brown (10YR 5/2) gravelly sandy loam; massive with medium and thick plate-like divisions; firm, brittle; few fine vesicular pores; 20 percent gravel; common fine and medium prominent dark reddish brown (5YR 3/3)

and common medium and coarse distinct dark yellowish brown (10YR 4/4) soft masses of iron accumulation; strongly acid.

The thickness of the mineral solum ranges from 10 to 20 inches. Depth to bedrock is greater than 60 inches. Reaction ranges from extremely acid to moderately acid in the mineral solum, and strongly acid to slightly acid in the substratum. Rock fragments are pebbles and cobbles and typically range from 5 to 35 percent in the mineral soil, but some subhorizons do not have rock fragments. Depth to redoximorphic features is less than 10 inches. Areas of iron depletion occur in the upper part of the spodic horizon.

The O horizon is fibric, hemic, or sapric material with hue of 5YR to 10YR, value 2 to 3, and chroma 0 to 2.

Some pedons have an A horizon which is neutral or has hue of 7.5YR or 10YR, value of 2 to 3, and chroma of 0 to 2. Texture is very fine sandy loam, fine sandy loam, loam, or silt loam in the fine-earth fraction.

The E horizon is neutral or has hue of 5YR to 10YR, value of 4 to 6, and chroma of 0 to 2. Texture is fine sandy loam or sandy loam in the fine-earth fraction. This horizon is 0 to 3 inches thick.

The Bh horizon is neutral or has hue of 5YR to 10YR. This horizon typically has value of 2 or 3, and chroma of 0 through 2, but higher values and chromas are allowed. Consistence is moderately or weakly smeary.

The Bhs horizon has a hue of 5YR to 10YR, with value and chroma of approximately 3 or less.

Some pedons have a BC horizon with hue of 10YR to 5Y, value of 4 or 5, and chroma of 1 or 2.

The B and BC horizons are silt loam, loam, sandy loam, fine sandy loam, or very fine sandy loam in the fine-earth fraction.

The Cdg horizon has hue of 10YR to 5Y, value of 4 or 5, and chroma of 1 or 2. Texture is loam, silt loam, sandy loam, very fine sandy loam, of fine sandy loam in the fine-earth fraction. Consistence is firm or very firm. Some Cdg horizons have redoximorphic features.

The Cd horizon has hue of 10YR to 5Y, value of 4 or 5, and chroma of 1 to 4. Texture is silt loam, loam, fine sandy loam, or sandy loam in the fine-earth fraction. Consistence is firm or very firm. The lower part of the Cd horizon, below 40 inches, ranges from friable to firm. Some Cd horizons have redoximorphic features.

Windsor Series

The Windsor series consists of very deep, excessively drained soils on deltas and terraces in the Champlain Valley. Windsor soils formed in stratified, water deposited, sandy sediments. Slopes range from 0 to 45 percent (fig. 48).

Windsor soils are associated on the landscape with Deerfield, Stafford, Gougeville, Vergennes, Occum, Charlton, and Chatfield soils. Deerfield soils are moderately well drained. Stafford soils are somewhat poorly drained. Gougeville soils are poorly drained. Vergennes soils are clayey and moderately well drained. Occum and Charlton soils are loamy and well drained. Chatfield soils are loamy, well drained, and 20 to 40 inches deep to meta-igneous bedrock.

Typical pedon of Windsor loamy sand, 0 to 3 percent slopes, in the town of Lewis, 170 feet southwest of a point on Twin Valley Road that is 1,580 feet northwest of the junction of Twin Valley Road and Alden Road, in a corn field; USGS Willsboro, NY 15 minute topographic quadrangle; NAD 1927; lat. 44 degrees 15 minutes 24 seconds N. and long. 73 degrees 28 minutes 36 seconds W.

Ap—0 to 10 inches, dark brown (10YR 3/3) loamy sand; moderate fine and medium granular structure; very friable; common fine and very fine roots; 1 percent rock fragments; moderately acid; abrupt smooth boundary.

Bw1—10 to 14 inches, dark yellowish brown (10YR 4/6) loamy sand; weak medium subangular blocky structure; very friable; common fine and very fine roots; 2 percent rock fragments; slightly acid; clear smooth boundary.
Bw2—14 to 19 inches, dark yellowish brown (10YR 4/4) sand; weak fine and medium subangular blocky structure; very friable; few fine and very fine roots; 5 percent rock fragments; slightly acid; clear smooth boundary.
BC—19 to 24 inches, yellowish brown (10YR 5/4) sand; weak fine and medium subangular blocky parting to weak fine granular structure; very friable; 10 percent rock fragments; slightly acid; clear smooth boundary.
C—24 to 72 inches, yellowish brown (10YR 5/4) sand; single grain; loose; 5 percent rock fragments; slightly acid.

The thickness of the solum ranges from 10 to 36 inches. Rock fragments, dominantly fine gravel, range from 0 to 10 percent by volume in the solum and from 0 to 15 percent in the substratum. Thin strata of gravel or thin subhorizons of coarse sand or loamy coarse sand are present in some pedons. Unless the soil is limed, reaction in the solum commonly is very strongly acid to moderately acid, but the range includes slightly acid. Unless the soil is limed, reaction in the substratum commonly is very strongly acid to slightly acid but the range includes neutral.

The A horizon has hue of 7.5YR or 10YR, value of 2 or 3, and chroma of 1 to 3. Disturbed pedons have an Ap horizon up to 12 inches thick with value of 3 or 4 and chroma of 2 to 4. The A or Ap horizon is loamy fine sand or loamy sand. It has weak or moderate granular structure and is very friable, friable, or loose.

Some pedons have a thin E horizon with value of 4 to 6 and chroma of 1 or 2.

The upper part of the Bw horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8. The lower part of Bw horizon has hue of 7.5YR to 5Y, value of 4 to 7, and chroma of 3 to 6. The Bw horizon is loamy sand or loamy fine sand in the upper

Figure 48.—Soil profile of the Windsor series from a road cut, in the town of Essex, in a White Pine plantation. Note the coarse sandy textures in the substratum. Row crops suffer moisture stress in these soils toward the end of the growing season in most years. Drier site timber species such as White and Red Pine, and Red Oak do well on these excessively drained sands.

part and loamy fine sand, loamy sand, fine sand, or sand in the lower part. The Bw horizon has weak granular or weak subangular blocky structure, or it is massive or single grain. Consistence is very friable or loose.

Some pedons have a BC horizon similar to the lower part of the Bw horizon.

The C horizon has hue of 5YR to 5Y, value of 4 to 7, and chroma of 1 to 6. Texture is fine sand, sand, loamy fine sand, or loamy sand. The horizon is massive or single grain and consistence is very friable or loose.

Wonsqueak Series

The Wonsqueak series consists of very deep, very poorly drained soils on broad flood plains, and on toeslopes and upland depressions of glaciated hills and ridges. Wonsqueak soils formed in saturated, decomposing plant material overlying loamy sediments. Slopes range from 0 to 2 percent.

Wonsqueak soils are associated on the landscape with Bucksport, Pyrities, Kalurah, Malone, Typic Endoaquolls, Nehasne, Monadnock, Tunbridge, and Lyman soils. Bucksport soils are greater than 51 inches deep to mineral soil. Pyrities, Kalurah, and Malone soils are loamy and are well drained, moderately well drained, and somewhat poorly drained respectively. Typic Endoaquolls soils are loamy. Monadnock soils are loamy over sandy or gravelly and are well drained. Nehasne and Tunbridge soils are loamy, well drained, and are 20 to 40 inches deep to marble and meta-igneous bedrock respectively. Lyman soils are loamy, well drained, and are 10 to 20 inches deep to meta-igneous bedrock.

Typical pedon of Wonsqueak muck, 0 to 2 percent slopes, in the town of Schroon, 200 feet south of a point on Johnson Pond Road that is 2,800 feet west of the junction of Johnson Pond Road and Letsonville Road; USGS Paradox Lake, NY 7.5 minute topographic quadrangle; NAD 1927; lat. 43 degrees 54 minutes 49 seconds N. and long. 73 degrees 38 minutes 54 seconds W.

Oa1—0 to 12 inches, black (10YR 2/1) broken face and rubbed muck (sapric material); 20 percent unrubbed fiber, 3 percent rubbed fiber; weak fine granular structure; very friable; about 10 percent fine sand; few fine and medium roots; moderately acid; clear wavy boundary.

Oa2—12 to 25 inches, very dark brown (10YR 2/2) broken face, black (10YR 2/1) rubbed muck (sapric material); 35 percent unrubbed fiber, 5 percent rubbed fiber; massive; friable; about 20 percent fine sand; neutral; clear smooth boundary.

2Cg1—25 to 29 inches, gray (2.5Y 5/1) sandy loam; massive; friable; 10 percent rock fragments; slightly alkaline; clear smooth boundary.

2Cg2—29 to 72 inches, gray (5Y 5/1) silt loam; common coarse prominent light olive brown (2.5Y 5/4) and few fine prominent brown (7.5YR 4/4) soft masses of iron accumulation; massive; friable; slightly alkaline.

The thickness of the organic soil material and the depth to the mineral substratum ranges from 16 to 51 inches. The content of woody fragments in the organic material ranges from 0 to 20 percent. The content of mineral material in the organic layers ranges from 0 to 20 percent. The fibers are typically of herbaceous origin but the fibers in some layers are of woody origin. In some pedons, fibers from sphagnum moss are dominant in the surface tier and make up thin layers in the subsurface and bottom tier. The reaction of the organic material in 0.01 M calcium chloride ranges from 4.0 to 6.5, but is 4.5 or more in at least some part of the control section.

The surface tier is neutral or has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 0 to 2. The surface tier is typically sapric material but in some pedons may be hemic or fibric materials with or without sapric materials. It is massive or has weak, fine or medium, granular or subangular blocky structure. Consistence is nonsticky or slightly sticky. The surface tier ranges from extremely acid to slightly acid in 0.01 M calcium chloride.

The subsurface and bottom tiers are neutral or have hue of 2.5YR to 2.5Y, value of 2 to 4, and chroma of 0 to 2. The tiers are typically sapric material but some pedons have thin layers of fibric material with a total thickness of less than 5 inches or thin layers of hemic material with a total thickness of less than 10 inches. The subsurface and bottom tiers are massive or have platy, granular or subangular blocky structure. Consistence is nonsticky or slightly sticky. Reaction ranges from very strongly acid to slightly acid in 0.01 M calcium chloride.

The C horizon is neutral or has hue of 5YR to 5GY, value of 3 to 6, and chroma of 0 to 4. It is dominantly silt loam but ranges from sandy loam to silty clay loam in the fine-earth fraction. The upper part has mucky mineral material in some pedons. Consistence is non-sticky, slightly sticky, or moderately sticky and nonplastic to plastic. The content of rock fragments ranges from 0 to 20 percent and is mostly gravel. Reaction ranges from very strongly acid to slightly alkaline.

Formation of the Soils

The first part of this section describes the factors of soil formation and relates them to the soils in the survey area. The second part defines the processes of horizon development as they relate to soil formation in the area.

Factors of Soil Formation

Soils are the product of weathering and other physical or chemical processes that act on parent material. The properties of a soil at a given point on the earth's surface depend on a combination of several factors of soil formation: parent material, relief, climate, plant and animal life, and time. The relative influence of each of these factors differs from place to place, and each factor modifies the effect of the others. For example, the impact of climate over a given area is tempered by the nature of the relief or of the parent material. In many areas, the influence of a single factor is dominant (USDA NRCS, http://soils.usda.gov/education/facts/formation.html).

Parent Material

Parent material is the unconsolidated earthy material in which soils are formed. It influences the physical, chemical, and mineralogical composition of the soils. It also influences the rate at which soil forming processes proceed.

Most of the soils in Essex County formed in deposits left as a result of glaciation. Till is the most extensive type of parent material. Less extensive are glacial outwash, lacustrine and marine, recent alluvium, and organic deposits.

Soils formed in till have a wide range of characteristics as a result of the heterogeneous nature of these deposits, which after being transported by glacial ice, are generally a poorly sorted, random mixture of sand, silt, clay, and rock fragments ranging in size from gravel to boulders. Soils such as the Becket, Mundalite, Esther, Ampersand, and Skerry series formed in very deep tills that were deposited at the base of active, flowing glaciers and have a dense substratum. Other till soils such as the Monadnock, Fernlake, Hermon, and Sunapee series formed in material that was "dumped" out of the glaciers by mass wasting of stagnant ice, and do not have a dense layer. Although both of these deep till types have a friable and free draining surface and subsoil, downward movement of water is restricted in the first group by the dense substratum and affects how the soil develops and behaves under different uses. In many areas, the till is moderately deep or shallow over bedrock. Lyman and Tunbridge soils, for example, are shallow and moderately deep respectively to anorthositic gneiss bedrock. The fabric and rock fragments of these soils are made up mostly of the underlying anorthositic gneiss, and this affects the physical and chemical development of the soils. Farmington and Galway soils are shallow and moderately deep respectively to limestone bedrock. These soils are mostly derived from the underlying limestone bedrock which has influenced their development. Some areas have a significant amount of exposed bedrock at the surface. Rock outcrop is mapped as a major component in these areas.

As the last ice age ended, and the glacial ice melted, large quantities of meltwater transported and sorted soil and rock debris. This material is referred to as glacial

outwash and was redeposited in layers of sand and gravel on outwash plains, kame terraces, deltas, and beach ridges. Adams, Colton, and Howard are examples of soils formed in this material. Adams and Colton soils are made up of material weathered from anorthositic gneiss bedrock and are generally more acidic. Howard soils are mainly derived from limestone and are alkaline. These soils are gravelly or sandy.

At deglaciation, a huge water body formed in the Champlain Valley. Later on, an estuary replaced this fresh water body as an arm of the Atlantic Ocean, often referred to as the "Champlain Sea". Streams flowing into this pro-glacial lake (and later sea) dropped their suspended sediment over hundreds of years to form lacustrine and marine deposits. These materials range from laminated silts and very fine sands with varying amounts of clay, to mostly clay with some silt. Dunkirk, Collamer, Vergennes, and Kingsbury are examples of soils developed from this material.

In more recent times, overflowing streams have deposited alluvial material on the flood plains. Soils that formed in this material tend to have little soil development and are commonly variable in texture. Occum and Ondawa soils formed in coarser textured material and are primarily sandy loam textures. Lovewell and Cornish soils formed in finer textured deposits and are primarily silt loam textures.

Soils formed in organic deposits are mainly in closed depressions in the uplands and along the lake plain near Lake Champlain. In these very poorly drained upland depressions and marshes near the lake, dead plant material will accumulate in thick deposits over hundreds of years under saturated conditions. Pleasant Lake and Catden are examples of soils formed in well decomposed organic material.

Relief

The shape of the land surface, the slope, and the position of the land surface in relation to the water table have had a great influence on the formation of the soils in the survey area. Soils that formed in gently sloping or strongly sloping convex positions or in steeply sloping areas, where little or no runoff accumulates, commonly are well drained and do not contain any evidence of seasonal saturation, such as gray or reddish brown mottling in the soil profile. Monadnock and Charlton soils are examples. In the more gently sloping planar or concave areas, where runoff is slower, the soils generally exhibit some evidence of short periods of wetness, such as gray and reddish brown mottling (redoximorphic features) in the lower subsoil. Sunapee and Bombay soils are examples. In nearly level or slightly concave areas, the water table is typically closer to the surface for extended periods, resulting in prominent redoximorphic features close to the surface. Adirondack and Massena soils are examples. In level areas and closed depressions, the water table is at or near the surface for much of the growing season, resulting in a grayish subsoil and accumulation of organic matter in and on the surface layer. Tahawus and Sun soils are examples.

Climate

Climate, particularly temperature and precipitation, is one of the most influential of the soil forming factors. It determines to a large degree the kind of weathering processes that occur. It also affects the growth and kind of vegetation, microbial activity, and the leaching and translocation of weathered material. Most of Essex County has a humid, temperate climate which tends generally to promote the development of moderately weathered, leached soils. Soil temperature is affected by rising elevation from east to west (warmer to colder), proximity to Lake Champlain, and latitude. Precipitation follows a general east to west gradient as well going from relatively drier in the east near Lake Champlain to wetter in the west and higher elevations. Three soil temperature zones, mesic, frigid, and cryic have been

established in Essex County, and along with their respective precipitation, rates combine to greatly influence the formation of the soils. Soils in the three zones are separated based on elevation: mesic from about 95 to 500 feet in elevation, frigid from 500 to 3,000 feet, and cryic at 3,000 feet and above. Soils of the mesic zone in the Champlain Valley are warmer and moderate rates of oxidation and biological activity result in relatively moderate levels of organic matter accumulation in the surface and very little organic matter accumulation in the subsoil. Soils of the frigid zone, which makes up most of the county, are cooler and slower rates of oxidation and biological activity result in increased organic matter accumulation in the surface and in the subsoil. Soils of the cryic zone in the High Peaks Region are cold most of the year. They have relatively slow oxidation and biological activity rates and organic matter can accumulate on the surface to form thick layers, and also accumulate in the subsoil at very high levels.

More specific data is in the climate section under “General Nature of the County”.

Plant and Animal Life

Organic matter accumulation, biochemical weathering, profile mixing, nutrient cycling, and aggregate stability are all enhanced by the activities of organisms in the soil (Brady and Weil, 1999). Vegetative cover reduces soil erosion. Organic acids produced by biological activity on plant leaf and needle material bring iron and aluminum into solution by complexation and accelerate the leaching of these metals and their accumulation in the subsoil.

Earthworms and burrowing animals help to keep the soil porous and more permeable to air and water. Their waste products provide nutrients for plant uptake and cause the aggregation of soil particles and improve soil structure. Bacteria and fungi decompose vegetation which results in the release of nutrients available for plant uptake, and by-products from this decomposition also enhance soil structure and health.

The original vegetation in the survey area was native forest consisting of northern hardwoods and conifers. The loss of nutrients through leaching is slow under hardwoods because the trees take up large quantities of nutrients and return much of them to the surface each year as leaf litter. Conifers, such as spruce, fir, and pines, do not use large amounts of nutrients; therefore, leaching is more rapid under them than it is under hardwoods. Soils generally tend to be more acid under conifers than hardwoods.

In many of the soils on uplands which have dense substratums or are moderately deep or shallow to bedrock, the rooting depth is shallow and the trees are susceptible to windthrow. As a result, the soil materials are being mixed gradually over time.

Human activity, such as the clearing of trees and the cultivating of land, also has influenced formation of the soils. Nutrients that have been added as fertilizer are applied, plowing has mixed and destroyed some soil horizons, and erosion has been accelerated in many areas.

Time

Time is a passive, but important, soil-forming factor. In geological terms, the deposits in which soils formed in Essex County are relatively young. They were deposited when the last glacier receded about 10,000 to 15,000 years ago.

The degree of profile development reflects the age of a soil and the influence of other soil-forming factors. The soils in the survey area have not all reached the same stage of profile development because of the influence of the other soil-forming factors. Because the time factor is relatively constant within the county (except for deposits on

flood plains), the difference in appearance of the soils and the depth of weathering is commonly a function of differences in climate and parent material.

An immature soil is one that has not had enough time to develop distinct horizons. The soils in the Fluvaquents-Udifluvents map unit are an example of immature soils that lack distinct horizonation. They formed in recent alluvium in areas that are regularly flooded and receive periodic sediment deposition. The deposition regularly interrupts the time for soil development, resulting in thin horizons or irregular soil profiles.

Processes of Soil Formation

The soil-forming processes result in the development of distinct layers, or soil horizons. These horizons can be viewed in a vertical cut of soil, known as a soil profile. The soil profile extends from the surface downward into material that is little altered by the soil-forming processes. Most soils contain three major horizons, called A, B, and C horizons (surface, subsoil, and substratum). Many soils in Essex County also have O and E horizons (surface and subsurface).

Many processes are involved in the formation of soil horizons. Some of these processes include the accumulation of organic material, the leaching of soluble salts and minerals, translocation of iron and aluminum by organic acids, the translocation of clay minerals, and the reduction and transfer of iron under saturated conditions (Brady and Weil, 1999).

With very few exceptions, the soils of Essex County classify within five broad Soil Orders: Spodosols, Inceptisols, Alfisols, Entisols, and Histosols.

Most of the soils of the county classify as Spodosols (about 81 percent) and are found throughout the frigid and cryic temperature zones. The name is derived from the Greek word “spodos” meaning “wood ash”. They are characterized by the formation of a spodic subsoil horizon which has distinct morphology of a reddish brown or dark reddish brown subsoil (Bs or Bhs horizon), underlying an ashy colored (light gray) subsurface horizon (E horizon). The ashy colored E horizon generally underlies a “duff” or organic surface horizon (O horizon) made up of slightly to highly decomposed needle, leaf, and twig material. The E horizon is often mistaken for a burned surface layer presumably from an old forest fire, but in reality, the E horizon is formed when soil materials are leached from it and redeposited into the Bs or Bhs horizon(s) (spodic horizon) immediately below. Spodosols for the most part form in cool, humid climates in the mid to high latitudes of the world. Most Spodosols in the county form in coarse textured parent materials that are of glacial outwash or till origin. Textures are generally fine sandy loam, sandy loam, loamy sand, or sand. These parent materials are derived primarily from metamorphosed igneous intrusive bedrock, are very resistant to weathering, and tend to be acidic. Spodic horizon expression is generally strongest under coniferous forest canopy which tends to promote a more acidic soil environment; however, spodic horizon development readily occurs under mixed hardwood vegetation in the more acidic parent materials. Prevailing theory of Spodosol formation suggests that at first most base cations, especially calcium, are leached out of the upper part of the mineral soil column. Organic or “duff” layers build up on the surface from reduced microbial activity and slower decomposition rates, due to cooler temperatures and acidic conditions. As rainwater percolates through the O horizon, humic acids are leached down into the top of the soil and begin to break down minerals releasing iron, aluminum, and other elements. Iron and aluminum build complexes with these organic acids, become water soluble, and are leached (elluviate) out of the top mineral layers and precipitate (illuviate) into the B horizon as complexes of organic matter and iron and aluminum oxides. Continued removal of iron, aluminum, and other elements by these organic complexing agents results in the weathered E horizon, which is rich in quartz and other resistant minerals (Grunwald, 2008). The

quartz and other resistant minerals give the E horizon its ashy appearance. The precipitated iron, and variable concentrations of organic matter, give the B horizon its reddish brown or dark reddish brown appearance. Within Essex County, as one travels higher in elevation, colder in climate, and higher in rainfall, the spodic horizon becomes thicker and higher in organic matter content. Cold temperatures in the High Peaks Region, and reduced microbial activity probably contribute to the often very thick (greater than 8 inch) O horizons that form. Higher rainfall leaches higher concentrations of these humic acids into the spodic B horizon resulting in ultra acidic conditions and very high organic matter accumulation in these mineral subsoil layers. Spodosols are generally nutrient poor and therefore make marginal at best agricultural soils. However, the pH dependent potential nutrient holding and exchange capacity of these soils is high. The water holding capacity, despite the sandy textures, is also high within the spodic horizon, due to the high organic matter and iron and aluminum oxide content. Protection of the spodic horizon from erosion is important for forest health and watershed protection. In the Lake Placid area, certified rust free seed potatoes thrive in the acidic conditions of Spodosols because the growth of pathogens is inhibited by the low pH of these soils. Becket, Monadnock, Tunbridge, Lyman, Skerry, and Adirondack soils are Spodosols commonly found in the county.

Inceptisols are the next most common (about 7 percent) of the soil “Orders” found in Essex County. The name of this Order is derived from the Latin word “incepum” meaning “beginning”. They are characterized by the formation of a cambic subsoil horizon which typically shows relatively weak development including weathering of soil particles, release and oxidation of iron that imparts bright brown colors on well drained landforms, and weak formation of soil structure. The topsoil or A horizon, which has relatively low organic matter accumulation, generally forms above the cambic B horizon. On poorly drained landforms, where the water table is at or near the surface for much of the growing season, the cambic subsoil horizon forms when iron is reduced under saturated conditions imparting gray colors. Inceptisols in Essex County typically have a simple A, B, C sequence of horizon formation, and for the most part have developed in coarse textured parent materials of till origin which are fine sandy loams or sandy loams. Inceptisols are found all over the world and generally form on relatively “young” landscapes where the processes of soil formation have not had much time, in geologic terms, to act on the soil. They can form in a wide range of climatic conditions except arid regions. The cambic horizon often shows weak indication of either an argillic or spodic horizon, but not enough to qualify as either. It may be conceptually regarded as a signature of early stages of soil development, i.e soil structure or color development (Grunwald, 2008). Most of the Inceptisols mapped in Essex County are found in the mesic soil temperature zone adjacent to Lake Champlain; however, there are some Inceptisols mapped in the eastern foothills part of the frigid zone just west of the Champlain Valley. Many of these colder Inceptisols have developed in parent materials that have high amounts of limestone or marble bedrock material, and the reason spodic horizons have not developed in these soils may be because they still have high levels of calcium and base cations that have not yet leached out of the soil. Pyrities, Nehasne, Kalurah, and Malone are examples of frigid Inceptisols. Inceptisols in the warmer (mesic) Champlain Valley part of the county have formed in both limestone and acid gneiss parent materials. The reason that Spodosols have not developed in these warmer, acidic parent materials, may be that because of the warmer soil temperatures, microbial activity and oxidation of organic matter is greater, and the humic acids needed to form a spodic horizon are not abundant enough. Nutrient availability in these Inceptisols is parent material dependant. Because of the relatively low degree of weathering, horizons with high potential nutrient holding and exchange capacity such as an argillic horizon (discussed below), have not had time to develop. The Inceptisols formed in acidic parent materials are generally nutrient poor, existing nutrients are easily leached out, and they rank as

marginal agricultural soils. Basic (limestone) parent material Inceptisols are inherently very high in nutrients, so even with comparable rates of leaching there is still enough available nutrients to rank these as relatively good agricultural soils. Charlton, Chatfield, and Hollis are examples of mesic Inceptisols formed in acidic parent materials. Nellis, Amenia, Farmington, Galway, Pittsfield, Georgia, and Massena are examples of mesic Inceptisols formed in limestone (basic) parent materials.

Alfisols is an important soil “Order” found in Essex County despite its small extent (about 3 percent). The origin of the name of this Order is derived from the word pedalfer, which is an obsolete term used under the old US Soil Classification System. They are characterized by the formation of an *argillic* subsoil horizon in which fine clay particles are translocated (elluviated) from an overlying A and/or E horizon and precipitate (illuviate) into the underlying B (argillic) horizon. In well developed argillic horizons, fine clay particles that appear as patchy or continuous glossy films on the surfaces of structural aggregates, can be seen with the help of a hand lens. Typically, an A horizon with relatively low organic matter content, and an E horizon that appears lighter in color than both A and B horizons are common in Alfisols. By definition, the argillic horizon must have at least 20 percent more clay than the overlying horizon (either A or E), so texturally the argillic feels more sticky when rubbed than its overlying horizons. Alfisols on well drained landforms also exhibit weathering of soil particles, and release and oxidation of iron that will display bright brown colors. Structural development of soil aggregates is also generally well expressed. In Essex County, these soils have almost exclusively formed in the silty clay or clayey lacustrine (lake laid) or marine parent materials discussed above. These parent materials are already moderately high to very high in clay and are high in bases, especially calcium. Alfisols can be found all over the world usually in warm temperate climates with a wide range of rainfall rates. They typically form on much older landscapes than are found in Essex County. Alfisols formation in this county is probably based on several factors. Weathering of primary minerals by water in the surface mineral soil layers will form fine silicate clays of high base status. Free calcium carbonate, which is abundant in the parent material, must be leached further down in the soil profile because it tends to flocculate the clay into large particles and prevent downward movement. With calcium carbonate removed, fine clay can disperse in aqueous suspension, and translocation from the A and E horizons into the Bt (argillic) horizon can occur (with or without the aid of complexing organic compounds) under the influence of percolation water. The process of clay translocation is also called lessivage. An erratic moisture regime favors the formation of an argillic horizon, because the processes of weathering and translocation are supported by percolation water and the precipitation of the translocated material by dry moisture conditions (Grunwald, 2008). Perhaps one of the reasons alfisols can form on these particular landscapes of Essex County is that the parent materials were already sorted and redeposited as fine grained particles, so it does not take as long to weather them into fine clay particles. Almost all of the Alfisols in the county can be found in the mesic zone in the Champlain Valley, however there are a few isolated lacustrine (lake laid) terraces in the Ausable River valley part of the frigid zone where these soils have formed. They are inherently nutrient rich, the argillic horizon has high nutrient holding and exchange capacity, and they are among the best agricultural soils found in the county. Vergennes, Kingsbury, Covington, Dunkirk, Collamer, Niagara, Depeyster, and Hailesboro are examples of Alfisols found in the county.

Entisols is another important soil “Order” found in Essex County despite its small extent (about 3 percent). The origin of the name of this Order is derived from the word recent, implying very young or recently deposited. These soils have almost exclusively developed in sandy, deltaic, glacial outwash deposits of the mesic and frigid zones that lack a spodic horizon, and in poorly drained flood plain deposits. They are characterized by the formation of a very weakly developed *cambic* subsoil horizon in

better drained sandy deposits, and the lack of any subsoil horizon in poorly drained recent alluvial deposits. The cambic horizons show some limited weathering of soil particles, and subsequent release and oxidation of iron imparting bright brown colors. They are usually single grain or structureless due to their sandy textures. An A horizon, which has very low organic matter accumulation, generally forms above the cambic B horizon. Entisols in Essex County typically have a simple A, B, C sequence of horizon formation, but on poorly drained landforms, they have just an A, C profile. Entisols can be found all over the world and are typical of very young landscapes such as flood plains, or are common in environments where soil formation is retarded by lack of weathering agents (lack of water in deserts), or continuous saturation. Entisols formation on poorly drained flood plains is due to the young age of the parent material and prolonged saturation. Sandy deltaic deposits in the mesic soil areas of the Champlain Valley are probably transitional to Spodosols, but because they are warmer and have higher oxidation rates of organic matter, spodic horizon formation is retarded. The limited sandy Entisols found in the frigid soil areas, seem to have a higher base saturation, and given enough time for the bases to leach out, spodic horizons will form in these soils as well. Entisols are generally marginal agricultural soils because of there sandy textures, low water holding capacity, and droughtiness. Some of these soils have higher base status and are a little better for agriculture, but droughtiness and rapid leaching are still a problem. Poorly drained flood plain soils are saturated for prolonged periods and make poor agricultural soils. Windsor, Deerfield, Stafford, Gougeville, Champlain, Mooers, Rippowam, and Rumney are examples of Entisols found in the county.

Histosols is the last important soil "Order" found in Essex County that will be discussed and actually makes up about 6 percent of the county. The name is derived from the Greek word "histos" meaning "tissue". They are characterized by the accumulation of very thin (at least an inch) to very thick (greater than 51 inch) layers of decomposed organic matter from dead plant remains. Two major "Suborders" of Hisotols are found in Essex County. The first "Suborder" that will be discussed is the more familiar of the two and is named *Saprists*. Saprists are found in the wetlands (bogs, swamps, and marshes) of the county and form under saturated anaerobic conditions. They are scattered throughout the mesic and frigid soil temperature zones of the county. As the wetland plants die, the residues of these plants sink into the water, which inhibits their oxidation by reducing oxygen availability, and consequently acts as a partial preservative (Brady and Weil, 1999). The lack of oxygen, under saturated anaerobic conditions, reduces microbial activity and retards the oxidation of organic matter. Saprists must have accumulated organic layers that are at least 16 inches thick. Most of that thickness must be highly decomposed plant material. In Essex County some Saprists have developed in a nutrient rich (euic) basic environment, and the remainder have developed in an acid (dysic) environment. Saprists make up only about 2 percent of the soils in the county. The second, and less well known, "Suborder" of Histosols found in the county is the *Folists*. Folists are also made up of decomposed organic matter, but develop in cool, aerobic, non-saturated environments. They are only found in the frigid and cryic soil temperature zones of the county. Because of the colder climatic conditions at higher elevations, microbial activity and oxidation rates of organic matter are reduced and thick organic layers are able to build up on the surfaces of otherwise well drained landforms. In Essex County, Folists only form over acid gneiss bedrock and can range from 1 to 20 inches in thickness. They can have up to 4 inches of mineral soil between the organic layers and the bedrock, but the organic layers must be two thirds or more of the thickness of the whole horizon. Folists are common on very steep landforms of the High Peaks Region and some of the lower foothills where there are many exposed ledges, and make up about 4 percent of the county. These soils are very acidic, and the acidity seems to increase with elevation. Saprists are found in wetlands and are the basis of life in these

important habitats. Wetlands provide fish and wildlife habitat, natural water quality improvement, flood storage, shoreline erosion protection, and substantial biodiversity (US EPA, 2009). Folists provide important habitat for plants and animals in an otherwise barren (bare rock) environment. Because of the very high moisture holding capacity of the organic matter, Folists are an important component facilitating watershed protection. Bucksport, Burnt Vly, Catden, Pleasant Lake, Whallonsburg and Wonsqueak are examples of Saprists found in the county. Knob Lock and Ricker are examples of Folists found in the county.

Soil morphological features known as *redoximorphic* features, are formed by the processes of reduction, translocation, and oxidation of iron and manganese oxides in seasonally saturated soils (Vepraskas, 1992). They can be found in any of the wetter members of the soil orders discussed above (except in Saprists which are already continually saturated), and their presence will generally indicate the depth of seasonal saturation within the soil profile. In saturated horizons, iron and manganese are reduced by bacteria decomposing organic matter under anaerobic conditions. The reduced iron and manganese oxide minerals dissolve in water leaving gray colors (depletions), and diffuse onto other parts of the soil horizon or may be leached out completely. Iron and manganese oxides will translocate to other parts of the horizon and precipitate as bright red, orange, or black concentrations when they encounter oxygen from live roots, or soils aerate from fluctuating water table depth due to transpiration and percolation. In soils that are almost continually saturated, gray soil matrix colors form (gleying) simply by the reduction of iron in the presence of soluble organic matter and microorganisms. In moderately well drained and somewhat poorly drained soils, such as the Skerry and Adirondack series, reddish brown redox-concentrations and gray redox-depletions indicate the translocation of iron compounds, and the relative depths of seasonal high water tables. In the very poorly drained Tahawus soils, gray matrix colors of the subsoil and substratum indicate the continual reduction of iron minerals.

References

Ackerly, S.C. 1989. Reconstructions of mountain glacier profiles, northeastern United States: Geological Society of America Bulletin, V.101, p.561–572.

Alerich, Carol L., and D.A. Drake. 1995. Forest Statistics for New York, 1980 and 1983. United States Department of Agriculture, Forest Service, Northeast Experiment Station. Resource Bulletin NE-132.

Allen, R. S. 1967. Separation and Inspiration Concerning the First Industrial Application of Electricity in America. The Penfield Foundation Historical Publication No. 1, Ironville. Crown Point, New York.

Alling, H.L. 1918. Pleistocene geology, in Miller, W.J., The geology of the Lake Placid Quadrangle: New York State Museum Bulletin, Nos. 211–212, p.71–95.

Alling, H.L., 1920. Glacial geology, in Kemp, J.F., Geology of the Mount Marcy Quadrangle: New York State Museum Bulletin, Nos. 229–230, p.62–86. Bohlen, S.R., Valley, J.W., and Essene, E.J. 1985. Metamorphism in the Adirondacks. I. Petrology, Pressure and Temperature: Journal of Petrology, V.26, Part 4, p.971–992.

American Association of State Highway and Transportation Officials (AASHTO). 2000. Standard specifications for transportation materials and methods of sampling and testing. 20th edition, 2 volumes.

American Society for Testing and Materials (ASTM). 2001. Standard classification of soils for engineering purposes. ASTM Standard D 2487-00.

Barclay, D.J. 1993. Late Wisconsinan local glaciation in the Adirondack High Peaks region: unpublished senior thesis, University of East Anglia, Norwich, United Kingdom.

Bernstein, B. 1971. The Sticks, A Profile of Essex County, New York. Vail-Ballou Press, Inc., Binghamton, New York.

Brady, Nyle C., and Ray R. Weil. 1999. The Nature and Properties of Soils, Twelfth Edition.

Bohlen, S. R., Valley, J. W., and Essene E.J. 1985. Metamorphism in the Adirondacks. I. Petrology, Pressure and Temperature: Journal of Petrology Vol 26, No 4, p.971-992.

Buddington, A.F., and Whitcomb, L. 1941. Geology of the Willsboro Quadrangle: New York State Museum Bulletin No.325, p.137.

Cadwell, D.H., Muller, E.H., and Fleisher, P. Jay. 2003. Geomorphic history of New York State, in Cremeens, D.L., and Hart, J.P. (eds.), Geoarcheology of Landscapes in the Glaciated Northeast: New York State Museum Bulletin 497, p.7–14.

Cadwell, D.H., and Pair, D.L. 1991. Surficial geology map of New York: Adirondack Sheet, New York State Museum Map and Chart Series 40, Scale 1:250,000.

Chapman, D.H. 1937. Late-glacial and post-glacial history of the Champlain Valley; Amer. Jour. Sci., V.34 (5th Ser.), p.84-124.

Connally, G.G., and Sirkin, L.A. 1971. The Luzerne readvance near Glens Falls, New York: Geological Society of America Bulletin, V.82, p.989–1008.

Cornell University, College of Agricultural and Life Sciences. Forages.org. http://www.forages.org (verified, 2009).

Cornell University. 1987. Cornell Field Crops and Soils Handbook, Cornell Cooperative Extension, Second Edition.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Craul, Phillip J. 1987. The Essex County Forest Soil and Site Productivity Survey. SUNY ESF, Syracuse, NY.

Craft, J.L. 1969. Surficial geology of the International Lead Company McIntyre Development at Tahawus, New York, in Barnett, S.G. (ed.), New York State Geological Association Guidebook to Field Excursions, 41st Annual Meeting, p.138–141.

Craft, J.L., 1976. Pleistocene local glaciation in the Adirondack Mountains, New York: unpublished PhD dissertation, University of Western Ontario, London, p.226.

Cressey, G.B. 1977. Land Forms, in Thompson, J.H. (ed.), Geography of New York State: Syracuse University Press, p.19–53.

Cunnion, D. O. 1991. Essex County Agriculture A Brief History; Cornell Cooperative Extension of Essex County, Westport, New York.

Cunnion, D. O. 1985. “So You’ve Never Heard of Wollastonite?” Adirondack Life Magazine, January/February 1985. Lowville, New York. p.46–50.

Darling, R., and Kelly. 2008. Geology and mining of the Barton garnet mine, Gore Mountain and the NL Ilmenite mine Tahawus, New York and a review of the MacIntyre iron plantation of 1857, in Selleck, B.W. (ed.), Field Trip Guidebook for the 80th Annual Meeting of the New York State Geological Association, Lake George, New York, p.83–100.

Davis, P.T. 1999. Cirques of the Predidential Range, New Hampshire, and surrounding alpine areas in the northeastern United States: Géographie Physique et Quaternaire, V.53, p.25–45.

Dawson, J.C., Moravek, J.R., Glenn, M.F., and Pollard, G.C. 1988. Iron industry of the eastern Adirondack region: in Olmsted, J.F. (ed.), New York State Geol. Assoc. Guidebook for Field Trips, p.149-174.

Defebaugh, J. E. 1907. History of The Lumber Industry of America; Volume 2, The American Lumberman, Chicago, Illinois.

Denny, C.S. 1974. Pleistocene geology of the northeast Adirondack region, New York; U.S. Geological Survey Prof. Paper, No.786, p.50.

DeSimone, D.J., Wall, G.R., Miller, N.G., Rayburn, J.A., and Kozlowski, A.L. 2008. Glacial Geology of the Northern Hudson through Southern Champlain Lowlands: 71st Reunion of the Northeast Friends of the Pleistocene Guidebook, p.58.

Diemer, J.A. and Franzi, D.A. 1988. Aspects of the glacial geology of Keene and lower Ausable valleys, northeastern Adirondack Mountains, New York, in Olmsted, J.F., (ed.), New York State Geological Association Field Trip Guidebook, 60th Annual Meeting; Plattsburgh, N.Y., p.1–27.

Essex County Historical Society, Adirondack History Center Museum. http://www.adkhistorycenter.org/esco/essexcounty.html (verified–April, 2009).

Essex County Industrial Development Agency. (http://www.essexcountyida.com/) (verified–April, 2009).

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. February 24, 1995. Hydric soils of the United States.

Franzi, D.A., 1992. Late Wisconsinan lake history in the Ausable and Boquet valleys, eastern Adirondack Mountains, New York: New York State Museum Open File Report 2M-127, p.54–62.

Franzi, D.A., Rayburn, J.A., Yansa, C.H., and Knuepfer, P.L.K., 2002. Late glacial water bodies in the Champlain and Hudson lowlands, New York, in New York State Geological Association—New England Intercollegiate Geological Conference Joint Annual Meeting Guidebook. p.A5 1–23.

Franzi, D.A., Rayburn, J.A., Knuepfer, P.L.K., and Cronin, T.M. 2007. Late Quaternary history of northeastern New York and adjacent parts of Vermont and Quebec: 70th Annual Reunion of the Northeastern Friends of the Pleistocene. Plattsburgh, New York. p.70.

Grunwald S. Natural/Land Resources: http://grunwald.ifas.ufl.edu/Nat_resources/Natural_resources.htm (verified April 9, 2008).

Hughes, T., Borns, H.W., Jr., Fastook, J.L., Kite, J.S., and Lowell, T.V. 1985. Models of glacial reconstruction and deglaciation applied to Maritime Canada and New England, in Borns, H.W. (ed.), Late Pleistocene history of northeastern New England and southern Quebec: Geological Society of America Special Paper 197, p.139–150.

Hurt, G.W., L.M. Vasilas, editors. Version 6.0, 2006. Field Indicators of Hydric Soils in the United States.

Isachsen, Y.W., Landing, E., Lauber, J.M., Rickard, L.V., and Rogers, W.B. (eds.). 1991. Geology of New York–A Simplified Account: The University of the State of New York, The State Education Department, Educational Leaflet No.28, p.284.

Isachsen, Y.W., and Fisher, D.W. 1970. Geologic Map of New York–Adirondack Sheet (reprinted 1995): New York State Museum and Science Service, Map and Chart Series No.15.

Johnson, D.W. 1917. Date of local glaciation in the White, Adirondack and Catskill mountains: Geological Society of America Bulletin, V.28, p.543-552.

Kemp, J.F. and Alling, H.L. 1925. Geology of the Ausable Quadrangle: New York State Museum Bulletin, No.261, p.126.

Lake Champlain Maritime Museum, History of Lake Champlain. http://www.lcmm.org/shipwrecks_history/history/history.htm (verified – April, 2009).

Landing, E., 2007. Ediacaran–Ordovician of east Laurentia–Geologic setting and controls on deposition along the New York Promontory region, in Landing, E. (ed.). Ediacaran–Ordovician of East Laurentia, S.W. Ford Memorial Volume: New York State Museum Bulletin 510, p.5–24.

Landing, E., Franzi, D.A., and Amati, L., in press, Epeirogenic transgression near a triple junction: the oldest (latest Early–Middle Cambrian) marine onlap of cratonic New York and Quebec: Geological Magazine (June 2009).

Landing, E., Franzi, D.A., Hagadorn, J.W., Westrop, S.R., Kröger, B., and Dawson, J.C. 2007. Cambrian of East Laurentia—Field workshop in eastern New York and Vermont, in Landing, E., (ed.), Ediacaran–Ordovician of east Laurentia, S.W. Ford Memorial Volume: New York State Museum Bulletin 510, p.25–71.

Lupulescu, M., and Pyle, J. 2008. Mining history, mineralogy and origin of the gneiss (granite)–hosted Fe–P–REE and Fe oxide and gabbro–hosted Ti–Fe oxide deposits from the Mineville–Port Henry region, Essex County, New York, in Selleck, B.W. (ed.), Field Trip Guidebook for the 80th Annual Meeting of the New York State Geological Association. Lake George, New York. p.117-129.

McLelland, J. 2008. Geologic setting and characteristics of Adirondack anorthosite and related mangerite–charnockite–granite (AMCG Suite), in Selleck, B.W. (ed.), Field Trip Guidebook for the 80th Annual Meeting of the New York State Geological Association. Lake George, New York. p.83–100.

McLelland, J., and Wong, M. 2008. Geology and geochronology of the eastern Adirondacks, in Selleck, B.W. (ed.), Field Trip Guidebook for the 80th Annual Meeting of the New York State Geological Association. Lake George, New York. p.83–100.

McLelland, J., Valley, J.W., and Essene, E.J. 2001. Very high temperature, moderate pressure metamorphism in the New Russia gneiss complex, northeastern Adirondack highlands, metamorphic aureole to the Marcy anorthosite–Discussion: Canadian Journal of Earth Science, V.38, p.465–470.

McLelland, J., Daly, J.S., and McLelland, J.M. 1996. The Grenville orogenic cycle (ca. 1350–1000 Ma): an Adirondack perspective: Tectonophysics, V. 265, p.1–28.

Miller, W.J. 1925. Remarkable Adirondack glacial lake: Geological Society of America Bulletin, V.36, p.523–520.

Morisawa M. 1985. Rivers: Form and Process, London, Longman. Chapter 4 Entrainment and Transport, 37-53.

Muller, E.H. 1965a. New England–New York State: New York: Part II, International Association for Quaternary Research, VII Congress, Guidebook for INQUA Field Conference A., p.39–92.

Muller, E.H. 1965b. Quaternary geology of New York, in Wright, H.E., Jr. and Frey, D.B., (eds.), The Quaternary of the United States: Princeton University Press. Princeton, New Jersey. p.99–112.

Muller, E.H. 1969. Tahawus Y-1715: Radiocarbon, V.11, No.2, p.569.

Muller, E.H., and Calkin, P.E. 1993. Timing of Pleistocene glacial events in New York State: Canadian Journal of Earth Sciences, V.30, p.1829–1845.

Muller, E.H., Sirkin, L., and Craft, J.L. 1993. Stratigraphic evidence of a pre-Wisconsinan interglaciation in the Adirondacks, New York: Quaternary Research, V.40, p.163–168.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Newland, D.H. 1938. The landslide on the Boquet River near Willsboro, New York: New York State Museum Circular, No.20, p.7.

New York Agricultural Statistics Service. 2002. www.nass.usda.gov/ny (verified–April, 2009).

Pair, D.L., and Rodrigues, C.G. 1993. Late Quaternary deglaciation of the southwestern St. Lawrence Lowland, New York and Ontario: Geological Society of America Bulletin, V.105, p.1151–1164.

Peck, W., and Bailey, E. 2008. Origin of the Lewis wollastonite deposit, in Selleck, B.W. (ed.), Field Trip Guidebook for the 80th Annual Meeting of the New York State Geological Association. Lake George, New York. p.130–135.

Postel, A.W. 1952. Geology of the Clinton County magnetite district: U.S. Geological Survey Professional Paper 237, p.88.

Rayburn, J.A. 2004. Deglaciation of the Champlain Valley, New York and Vermont and its possible effects on North Atlantic climate change: unpublished PhD dissertation. Bighamton University. Binghamton, New York. p.158.

Rayburn, J.A., Knuepfer, P.L.K. and Franzi, D.A. 2005. A series of Late Wisconsinan meltwater floods through the Hudson and Champlain Valleys, New York State, USA: Quaternary Science Reviews, V.24, p.2410–2419.

Rayburn, J.A., Franzi, D.A., and Knuepfer, P.L.K. 2007. Evidence from the Champlain Valley for a later onset of the Champlain Sea and implications for late glacial meltwater routing to the North Atlantic: Palaeogeography, Palaeoclimatology, Palaeoecology. V.246, p.62–74.

Ridge, J.C. 2003. The last deglaciation of the northeastern United States, A combined varve, paleomagnetic, and calibrated 14C chronology, in Cremeens, D.L. and Hart, J.P., (eds.), Geoarcheology of Landscapes in the Glaciated Northeast: New York State Museum Bulletin 497, p.15–45.

Roden-Tice, M.K., and Tice, S.J. 2005. Regional-scale mid-Jurassic to late Cretaceous unroofing from the Adirondack Mountains through central New England based on apatite fission-track and (U-Th)/He thermochronology: Journal of Geology, V.113, p.535–552.

Ruedemann, R. 1931. The tangential master-stream of the Adirondack drainage: American Journal of Science, V.22, p.431–40.

SARE, 2009. Sustainable Agriculture Research and Education, Building Soils for Better Crops. http://www.sare.org/publications/bsbc/index.htm (verified–April, 2009).

Selleck, B.W. 2008. Stratigraphy, sedimentology and diagenesis of the Potsdam Formation, southern Lake Champlain Valley, New York, in Selleck, B.W. (ed.), Field Trip Guidebook for the 80th Annual Meeting of the New York State Geological Association. Lake George, New York. p.144–154.

Smith, H. P. 1885. History of Essex County; D. Mason & Co., Publishers, Syracuse, New York.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. (http://soils.usda.gov/technical/manual/)

Soil Survey Staff. 1998. Keys to soil taxonomy. 8th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436. (http://soils.usda.gov/technical/classification/taxonomy/)

Spaulding, S. S. 1874. Spaulding's History of Crown Point, N. Y. From 1800 to 1874; Herald Print, Port Henry, New York.

SUNY Potsdam, 2004. Northern New York Travel and Tourism Research Center. Essex County, NY Tourism Profile. http://visitadirondacks.com/nnytourismresearch/reports.asp (verified–April, 2009).

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, National Agricultural Statistics Service.The Census of Agriculture. 1850, 1870, 1900, 1930, 2002. (http://www.agcensus.usda.gov/Publications/Historical_Publications/index.asp) (verified–April, 2009).

United States Department of Agriculture, Natural Resources Conservation Service. (http://soils.usda.gov/education/facts/formation.html).

United States Department of Agriculture, Natural Resources Conservation Service. National Forestry Manual. (http://soils.usda.gov/technical/nfmanual/)

United States Department of Agriculture, Natural Resources Conservation Service. National Soil Information System. (http://soils.usda.gov/technical/nasis/)

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (http://soils.usda.gov/technical/handbook/)

United States Department of Agriculture, Natural Resources Conservation Service. 1996. Soil survey laboratory methods manual. Soil Survey Investigations Report 42. (http://soils.usda.gov/technical/lmm/)

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. (http://soils.usda.gov/technical/handbook/contents/part622.html#02)

United States Department of Agriculture, Soil Conservation Service. 1981. Land resource regions and major land resource areas of the United States. U.S. Department of Agriculture Handbook 296. (http://soils.usda.gov/survey/geography/mlra/)

United States Department of Agriculture, Soil Conservation Service. June 1978. Soil Survey of Lake Placid Area, New York.

United States Department of Commerce, Bureau of the Census. 2000. http://www.census.gov/main/www/cen2000.html (verified–April, 2009).

United States Environmental Protection Agency, Wetlands Functions and Values: http://www.epa.gov/watertrain/wetlands/ (verified–April, 2009).

Vepraskas, M.J. 1992. Redoximorphic features for identifying aquic conditions. Tech. Bull. 301, NC Agric. Res. Serv., Raleigh. Revised and reprinted 1994, 1996, 2000.

Waitt, R.B., and Davis, P.T. 1988. No evidence for post-ice-sheet cirque glaciation in New England: American Journal of Science, V.288, p.495–533.

Watson, W. C. 1869. The Military and Civil History of the County of Essex, New York; J. Munsell. Albany, New York.

Welsh, P. C. 1995. Jacks, Jobbers and Kings, Logging the Adirondacks 1850 – 1950; North Country Books, Inc., Utica, New York.

Whitney, P.R., and Olmsted, J.F. 1993. Bedrock geology of the Au Sable Forks quadrangle, northeastern Adirondack Mountains, New York: New York State Museum Map and Chart Series 43, scale 1:62,500, p.48.

Glossary

Ablation till. Loose, permeable till deposited during the final downwasting of glacial ice. Lenses of crudely sorted sand and gravel are common.

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvial fan. The fanlike deposit of a stream where it issues from a gorge upon a plain or of a tributary stream near or at its junction with its main stream.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Aqueous. Of, relating to, or resembling water; made from, with, or by water (an aqueous solution).

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction in which a slope faces.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 40-inch profile or to a limiting layer is expressed as:

Very low	0 to 2.4
Low	2.4 to 3.2
Moderate	3.2 to 5.2
High	more than 5.2

Backslope. The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

Basal area. The area of a cross section of a tree, generally referring to the section at breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

Bedding planes. Fine strata, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediment.

Bedding system. A drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Bottom land. The normal flood plain of a stream, subject to flooding.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Breast height. An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.

Broadly defined map unit. Map unit boundaries were plotted and verified at wide intervals. Maps were made at a scale of 1:62.500 or 5,208 feet to the inch, and the allowable minimum size of a soil delineation is 40 acres (Order 3 soil survey).

Brush management. Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.

Calcareous soil. A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.

Canopy. The leafy crown of trees or shrubs. (See Crown.)

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Catena. A sequence, or “chain,” of soils on a landscape that formed in similar kinds of parent material but have different characteristics as a result of differences in relief and drainage.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Chiseling. Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.

Cirque. A semicircular, concave, bowllike area that has steep faces primarily resulting from glacial ice and snow abrasion.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay depletions. Low-chroma zones having a low content of iron, manganese, and clay because of the chemical reduction of iron and manganese and the removal of iron, manganese, and clay. A type of redoximorphic depletion.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.

Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.

COLE (coefficient of linear extensibility). See Linear extensibility.

Colluvium. Soil material or rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

Complex slope. Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Concretions. Cemented bodies with crude internal symmetry organized around a point, a line, or a plane. They typically take the form of concentric layers visible to the naked eye. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up concretions. If formed in place, concretions of iron oxide or manganese oxide are generally considered a type of redoximorphic concentration.

Conservation cropping system. Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

Conservation tillage. A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.

Consistence, soil. Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."

Contour stripcropping. Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

Corrosion. Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.

Cover crop. A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.

Cropping system. Growing crops according to a planned system of rotation and management practices.

Crop residue management. Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.

Crown. The upper part of a tree or shrub, including the living branches and their foliage.

Culmination of the mean annual increment (CMAI). The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Delta. A body of alluvium having a surface that is nearly flat and fan shaped; deposited at or near the mouth of a river or stream where it enters a body of relatively quiet water, generally a sea or lake.

Dense layer (in tables). A very firm, massive layer that has an average bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

Depth, soil. Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained,* and *very poorly drained*. These classes are defined in the "Soil Survey Manual."

Drainage, surface. Runoff, or surface flow of water, from an area.

Drumlin. A low, smooth, elongated oval hill, mound, or ridge of compact glacial till. The longer axis is parallel to the path of the glacier and commonly has a blunt nose pointing in the direction from which the ice approached.

Duff. A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.

Ecological site. An area where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. An ecological site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other ecological sites in kind and/or proportion of species or in total production.

Eluviation. The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

Endosaturation. A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.

Eolian soil material. Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes or to loess in blankets on the surface.

Ephemeral stream. A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.

Episaturation. A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.

Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

Escarpment. A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Synonym: scarp.

Esker. A narrow, winding ridge of stratified gravelly and sandy drift deposited by a stream flowing in a tunnel beneath a glacier.

Extrusive rock. Igneous rock derived from deep-seated molten matter (magma) emplaced on the earth's surface.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity, normal moisture capacity,* or *capillary capacity*.

Fill slope. A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.

Fine textured soil. Sandy clay, silty clay, or clay.

Flagstone. A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.

Flood plain. A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

Fluvial. Of or pertaining to rivers; produced by river action, as a fluvial plain.

Foothill. A steeply sloping upland that has relief of as much as 1,000 feet (300 meters) and fringes a mountain range or high-plateau escarpment.

Footslope. The position that forms the inner, gently inclined surface at the base of a hillslope. In profile, footslopes are commonly concave. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Glacial drift. Pulverized and other rock material transported by glacial ice and then deposited. Also, the sorted and unsorted material deposited by streams flowing from glaciers.

Glacial outwash. Gravel, sand, and silt, commonly stratified, deposited by glacial meltwater.

Glacial till. Unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice.

Glaciofluvial deposits. Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and occur as kames, eskers, deltas, and outwash plains.

Glaciolacustrine deposits. Material ranging from fine clay to sand derived from glaciers and deposited in glacial lakes mainly by glacial meltwater. Many deposits are interbedded or laminated.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water. Water filling all the unblocked pores of the material below the water table.

Gully. A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hardpan. A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.

Hard to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Head out. To form a flower head.

Head slope. A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A natural elevation of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the “Soil Survey Manual.” The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Igneous rock. Rock formed by solidification from a molten or partially molten state. Major varieties include plutonic and volcanic rock. Examples are andesite, basalt, and granite.

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Interfluve. An elevated area between two drainageways that sheds water to those drainageways.

Intermittent stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Iron depletions. Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

Kame. An irregular, short ridge or hill of stratified glacial drift.

Knoll. A small, low, rounded hill rising above adjacent landforms.

K_{sat}. Saturated hydraulic conductivity. (See Permeability.)

Lacustrine deposit. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

Landform. Comprises a geomorphological unit, and is largely defined by its surface form and location in the landscape, as part of the terrain, and as such, is typically and element of topography.
Landslide. The rapid downhill movement of a mass of soil and loose rock, generally when wet or saturated. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.
Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.
Leaching. The removal of soluble material from soil or other material by percolating water.
Lessivage. The translocation of clay colloids in a soil with no change in their chemical composition.
Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at $^1/_3$- or $^1/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.
Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.
Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.
Lodgment till. Compact glacial till deposited beneath the ice.
Loess. Fine grained material, dominantly of silt-sized particles, deposited by wind.
Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.
Low strength. The soil is not strong enough to support loads.
Marine deposit. Material deposited in a sea or brackish-water environment, and exposed when the water level is lowered or the elevation of the land is raised.
Masses. Concentrations of substances in the soil matrix that do not have a clearly defined boundary with the surrounding soil material and cannot be removed as a discrete unit. Common compounds making up masses are calcium carbonate, gypsum or other soluble salts, iron oxide, and manganese oxide. Masses consisting of iron oxide or manganese oxide generally are considered a type of redoximorphic concentration.
Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.
Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline.
Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.
Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.
Miscellaneous area. An area that has little or no natural soil and supports little or no vegetation.
Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.
Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.
Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.

Moraine. An accumulation of earth, stones, and other debris deposited by a glacier. Some types are terminal, lateral, medial, and ground.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few, common,* and *many;* size—*fine, medium,* and *coarse;* and contrast—*faint, distinct,* and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium,* from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse,* more than 15 millimeters (about 0.6 inch).

Mountain. A natural elevation of the land surface, rising more than 1,000 feet above surrounding lowlands, commonly of restricted summit area (relative to a plateau) and generally having steep sides. A mountain can occur as a single, isolated mass or in a group forming a chain or range.

Muck. Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

Mudstone. Sedimentary rock formed by induration of silt and clay in approximately equal amounts.

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Narrowly defined map unit. Map unit boundaries were plotted and verified at closely spaced intervals. Maps were made at a scale of 1:24,000 or 2,000 feet to the inch, and the allowable minimum size of a soil delineation is 5 to 7 acres (Order 2 soil survey).

Neutral soil. A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)

Nodules. Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.

Nose slope. A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland water flow is predominantly divergent.

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Outwash plain. A landform of mainly sandy or coarse textured material of glaciofluvial origin. An outwash plain is commonly smooth; where pitted, it generally is low in relief.

Order 2 Soil Survey. Map unit boundaries were plotted and verified at closely spaced intervals. Maps were made at a scale of 1:24,000 or 2,000 feet to the inch, and the allowable minimum size of a soil delineation is 5 to 7 acres (Narrowly defined map unit).

Order 3 Soil Survey. Map unit boundaries were plotted and verified at wide intervals. Maps were made at a scale of 1:62.500 or 5,208 feet to the inch, and the allowable minimum size of a soil delineation is 40 acres (Broadly defined map unit).

Paleoterrace. An erosional remnant of a terrace that retains the surface form and alluvial deposits of its origin but was not emplaced by, and commonly does not grade to, a present-day stream or drainage network.

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan, fragipan, claypan, plowpan,* and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedon. The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as "saturated hydraulic conductivity," which is defined in the "Soil Survey Manual." In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as "permeability." Terms describing permeability, measured in inches per hour, are as follows:

Impermeable	less than 0.0015 inch
Very slow	0.0015 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poorly graded. Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.
Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.
Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.
Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Redoximorphic concentrations. Nodules, concretions, soft masses, pore linings, and other features resulting from the accumulation of iron or manganese oxide. An indication of chemical reduction and oxidation resulting from saturation.
Redoximorphic depletions. Low-chroma zones from which iron and manganese oxide or a combination of iron and manganese oxide and clay has been removed. These zones are indications of the chemical reduction of iron resulting from saturation.
Redoximorphic features. Redoximorphic concentrations, redoximorphic depletions, reduced matrices, a positive reaction to alpha, alpha-dipyridyl, and other features indicating the chemical reduction and oxidation of iron and manganese compounds resulting from saturation.
Reduced matrix. A soil matrix that has low chroma in situ because of chemically reduced iron (Fe II). The chemical reduction results from nearly continuous wetness. The matrix undergoes a change in hue or chroma within 30 minutes after exposure to air as the iron is oxidized (Fe III). A type of redoximorphic feature.
Regolith. The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose earth material above the solid rock.
Relief. The elevations or inequalities of a land surface, considered collectively.
Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.
Rill. A steep-sided channel resulting from accelerated erosion. A rill generally is a few inches deep and not wide enough to be an obstacle to farm machinery.
Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.
Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.
Root zone. The part of the soil that can be penetrated by plant roots.
Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

Sandstone. Sedimentary rock containing dominantly sand-sized particles.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Saprolite. Unconsolidated residual material underlying the soil and grading to hard bedrock below.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Scarification. The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.

Sedimentary rock. Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.

Sequum. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)

Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.

Shoulder. The position that forms the uppermost inclined surface near the top of a hillslope. It is a transition from backslope to summit. The surface is dominantly convex in profile and erosional in origin.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Side slope. A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel.

Silica. A combination of silicon and oxygen. The mineral form is called quartz.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Sinkhole. A depression in the landscape where limestone has been dissolved.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

Slickensides. Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey, classes for simple slopes are as follows:

Nearly level	0 to 3 percent
Gently sloping	3 to 8 percent
Strongly sloping	8 to 15 percent
Moderately steep	15 to 25 percent
Steep	25 to 35 percent
Very steep	35 percent and higher

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Sodium adsorption ratio (SAR). A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Spodic horizon. A dark reddish brown or reddish brown soil layer with fine sandy loam or coarser texture. This layer is a result of illuviated organic matter and aluminum, with or without iron.

Stone line. A concentration of coarse fragments in a soil. Generally, it is indicative of an old weathered surface. In a cross section, the line may be one fragment or more thick. It generally overlies material that weathered in place and is overlain by recent sediment of variable thickness.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.

Substratum. The part of the soil below the solum.

Subsurface layer. Any surface soil horizon (A, E, AB, or EB) below the surface layer.

Summit. The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

Talus. Fragments of rock and other soil material accumulated by gravity at the foot of cliffs or steep slopes.

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terminal moraine. A belt of thick glacial drift that generally marks the termination of important glacial advances.

Terrace. An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay,* and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

Thin layer (in tables). Otherwise suitable soil material that is too thin for the specified use.

Till plain. An extensive area of nearly level to undulating soils underlain by glacial till.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toeslope. The position that forms the gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Trace elements. Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.

Upland. Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Variegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

Varve. A sedimentary layer or a lamina or sequence of laminae deposited in a body of still water within a year. Specifically, a thin pair of graded glaciolacustrine layers seasonally deposited, usually by meltwater streams, in a glacial lake or other body of still water in front of a glacier.

Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.

Water-worked (wave-worked) deposits. Material remaining from an ancient shoreline of a lake or sea. Much of the clay and silt particles have been washed out by wave movement leaving behind mostly sand, gravel or cobbles.

Weathering. All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

Well graded. Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Wilting point (or permanent wilting point). The moisture content of soil, on an ovendry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

Windthrow. The uprooting and tipping over of trees by the wind.

Tables

Table 1.—Temperature and Precipitation

TAPS Station: PERU 2 WSW, NY6538
Start yr. - 1971 End yr. - 2000

Month	Temperature (Degrees F.)						Precipitation (Inches)				
	Average daily maximum	Average daily minimum	Average	2 yrs in 10 will have-- Maximum temp. higher than--	2 yrs in 10 will have-- Minimum temp. lower than--	Average number of growing degree days*	Average	2 yrs in 10 will have-- less than--	2 yrs in 10 will have-- more than--	Average number of days w/.1 or more	Average total snowfall
	^{o}F	^{o}F	^{o}F	^{o}F	^{o}F	Units	In	In	In	In	In
January	28.0	8.2	18.1	57	-22	4	1.54	0.62	2.38	4	14.1
February	31.1	11.1	21.1	56	-19	7	1.58	0.68	2.40	4	11.5
March	41.2	21.0	31.1	72	-9	38	1.85	1.03	2.68	4	11.7
April	54.4	32.9	43.6	82	13	164	2.67	1.65	3.67	6	4.1
May	68.7	44.3	56.5	90	27	511	2.72	1.40	3.89	7	0.0
June	76.9	53.6	65.2	93	35	757	3.34	1.51	4.69	7	0.0
July	81.6	58.6	70.1	95	44	932	3.38	2.21	4.29	7	0.0
August	78.8	56.0	67.4	93	40	850	3.39	2.32	4.40	7	0.0
September	69.8	47.9	58.8	87	29	565	3.11	1.88	4.29	6	0.0
October	58.0	37.3	47.6	79	20	255	2.69	1.38	3.98	5	0.5
November	44.9	28.4	36.7	70	5	70	2.69	1.47	3.83	6	4.3
December	33.0	15.6	24.3	57	-15	9	2.02	0.89	2.97	4	11.8
Yearly :	----	----	----	----	----	----	----	----	----	----	---
Average	55.5	34.6	45.1	---	---	---	----	----	----	----	---
Extreme	100	-34	---	96	-25	---	----	----	----	----	---
Total	---	---	---	---	---	4162	30.99	25.77	34.32	67	58.1

Average # of days per year with at least 1 inch of snow on the ground: 85

*A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (Threshold: 40.0 deg. F).

Table 1.—Temperature and Precipitation—Continued

TAPS Station: ELIZABETHTOWN, NY2554
Start yr. - 1971 End yr. - 2000

Month	Temperature (Degrees F.)						Precipitation (Inches)				
				2 yrs in 10 will have--				2 yrs in 10 will have--			
	Average daily maximum	Average daily minimum	Average	Maximum temp. higher than--	Minimum temp. lower than--	Average number of growing degree days*	Average	less than--	more than--	Average number of days w/.1 or more	Average total snowfall
	°F	°F	°F	°F	°F	Units	In	In	In	In	In
January	27.9	4.5	16.2	53	-27	1	2.66	1.30	3.97	5	16.4
February	31.0	6.5	18.7	56	-24	4	2.37	1.13	3.58	5	13.5
March	41.1	18.2	29.6	74	-14	30	2.66	1.73	3.59	5	12.8
April	54.3	31.0	42.6	84	12	148	2.91	1.59	4.14	6	3.1
May	68.3	41.6	55.0	91	25	465	3.13	1.52	4.58	7	0.1
June	76.4	50.8	63.6	94	33	701	3.40	1.54	5.25	7	0.0
July	81.6	55.7	68.7	96	40	888	3.19	2.14	4.19	7	0.0
August	79.2	53.8	66.5	94	36	821	3.87	2.67	4.88	8	0.0
September	70.0	44.8	57.4	88	26	522	3.62	2.07	4.93	6	0.0
October	58.0	33.7	45.9	80	17	212	3.27	1.47	5.09	6	0.3
November	44.9	26.5	35.7	72	6	54	3.36	2.13	4.52	6	4.7
December	32.9	12.6	22.7	56	-18	5	2.44	1.13	3.59	5	14.2
Yearly :	---	---	---	---	---	---	---	---	---	---	---
Average	55.5	31.6	43.6	---	---	---	---	---	---	---	---
Extreme	100	-31	---	97	-29	---	---	---	---	---	---
Total	---	---	---	---	---	3852	36.89	25.79	41.84	73	65.0

Average # of days per year with at least 1 inch of snow on the ground: 100

*A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (Threshold : 40.0 deg. F).

Table 1.—Temperature and Precipitation—Continued

TAPS Station: LAKE PLACID 2 S, NY4555
Start yr. - 1971 End yr. - 2000

Month	Temperature (Degrees F.)						Precipitation (Inches)				
				2 yrs in 10 will have--				2 yrs in 10 will have--			
	Average daily maximum	Average daily minimum	Average	Maximum temp. higher than--	Minimum temp. lower than--	Average number of growing degree days*	Average	less than--	more than--	Average number of days w/.1 or more	Average total snowfall
	°F	°F	°F	°F	°F	Units	In	In	In	In	In
January	26.2	4.4	15.3	54	-29	2	2.69	1.35	3.84	7	20.7
February	29.6	6.5	18.1	56	-26	5	2.01	1.02	2.80	5	22.7
March	38.9	15.9	27.4	67	-18	24	2.75	1.90	3.59	7	26.5
April	50.9	27.7	39.3	76	5	98	2.83	1.75	3.88	7	5.9
May	64.6	38.7	51.7	85	21	363	3.30	1.94	4.56	9	0.0
June	72.6	47.5	60.0	88	29	596	3.98	2.15	5.65	9	0.0
July	76.4	52.2	64.3	89	35	744	4.04	2.80	5.11	8	0.0
August	74.1	50.6	62.3	87	33	675	4.25	3.11	5.42	9	0.0
September	66.1	43.3	54.7	83	23	436	4.19	2.71	5.57	8	0.0
October	55.1	33.3	44.2	76	14	186	3.55	2.21	4.86	8	0.0
November	42.2	24.0	33.1	66	-3	44	3.36	2.28	4.34	8	17.1
December	30.9	10.9	20.9	56	-24	6	2.71	1.70	3.47	7	22.1
Yearly :	---	---	---	---	---	---	---	---	---	---	---
Average	52.3	29.6	40.9	---	---	---	---	---	---	---	---
Extreme	94	-37	---	90	-31	---	---	---	---	---	---
Total	---	---	---	---	---	3178	39.65	30.23	45.34	92	115.2

Average # of days per year with at least 1 inch of snow on the ground: 120

*A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (Threshold: 40.0 deg. F).

Table 1.—Temperature and Precipitation—Continued

TAPS Station: NEWCOMB 3 E, NY5714
Start yr. - 1971 End yr. - 2000

Month	Temperature (Degrees F.)						Precipitation (Inches)				
				2 yrs in 10 will have--				2 yrs in 10 will have--			
	Average daily maximum	Average daily minimum	Average	Maximum temp. higher than--	Minimum temp. lower than--	Average number of growing degree days*	Average	less than--	more than--	Average number of days w/.1 or more	Average total snowfall
	°F	°F	°F	°F	°F	Units	In	In	In	In	In
January	26.2	4.9	15.5	51	-29	1	3.16	1.89	4.39	7	27.6
February	29.1	4.5	16.8	56	-26	1	2.48	1.42	3.56	6	22.0
March	39.0	14.2	26.6	70	-19	18	2.97	2.09	3.85	7	19.4
April	51.2	28.2	39.7	79	9	91	3.15	1.92	4.36	7	6.8
May	64.9	38.9	51.9	85	23	368	3.75	2.33	4.99	8	0.5
June	72.5	48.2	60.4	89	30	611	3.65	2.13	5.04	9	0.0
July	76.7	51.9	64.3	90	36	753	4.03	2.61	5.40	8	0.0
August	74.4	50.9	62.7	88	33	702	4.14	2.76	5.52	8	0.0
September	66.0	43.5	54.7	83	26	436	4.26	2.88	5.37	8	0.0
October	54.9	33.0	44.0	77	17	166	3.61	2.23	5.03	7	1.0
November	40.5	23.9	32.2	65	-2	29	3.86	2.83	4.89	8	11.1
December	29.4	10.6	20.0	53	-22	3	3.32	2.04	4.39	8	23.7
Yearly :	---	----	---	---	---	---	---	---	---	---	---
Average	52.1	29.4	40.7	---	---	---	---	---	---	---	---
Extreme	94	-34	---	91	-31	---	---	---	---	---	---
Total	---	---	---	---	---	3180	42.40	37.51	45.86	91	112.0

Average # of days per year with at least 1 inch of snow on the ground: 139

*A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (Threshold: 40.0 deg. F).

Table 1.—Temperature and Precipitation—Continued

TAPS Station: MOUNT MANSFIELD, VT5416
Start yr. - 1971 End yr. - 2000

Month	Temperature (Degrees F.)						Precipitation (Inches)				
				2 yrs in 10 will have--				2 yrs in 10 will have--			
	Average daily maximum	Average daily minimum	Average	Maximum temp. higher than--	Minimum temp. lower than--	Average number of growing degree days*	Average	less than--	more than--	Average number of days w/.1 or more	Average total snowfall
	°F	°F	°F	°F	°F	Units	In	In	In	In	In
January	17.5	1.3	9.4	46	-30	0	6.00	4.04	7.90	15	41.1
February	19.1	3.6	11.3	44	-25	0	4.49	3.05	5.80	12	33.2
March	27.6	12.6	20.1	55	-18	7	5.85	4.67	6.97	13	35.4
April	38.6	24.1	31.4	64	-1	39	6.28	4.07	8.27	11	23.5
May	53.4	37.4	45.4	75	17	220	6.16	3.33	8.98	11	3.5
June	61.5	46.5	54.0	77	27	420	6.88	4.38	9.20	11	0.1
July	65.3	51.3	58.3	79	34	566	7.46	5.30	9.52	11	0.0
August	63.3	50.0	56.6	75	34	515	8.05	5.79	10.22	11	0.0
September	55.3	41.9	48.6	72	22	275	7.49	5.18	9.33	11	0.3
October	44.0	30.5	37.2	64	11	85	6.36	4.28	8.08	10	8.7
November	31.8	19.3	25.6	55	-3	12	7.40	5.76	9.11	14	32.0
December	22.1	7.1	14.6	46	-24	0	6.37	4.57	8.08	15	39.6
Yearly :	---	---	---	---	---	---	---	---	---	---	---
Average	41.6	27.1	34.4	---	---	---	---	---	---	---	---
Extreme	84	-38	---	79	-32	---	---	---	---	---	---
Total	---	---	---	---	---	2140	78.78	67.14	88.69	145	217.4

Average # of days per year with at least 1 inch of snow on the ground: 201

*A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (Threshold : 40.0 deg. F).

Table 2—Freeze Dates in the Spring and Fall

FROST Station: PERU 2 WSW, NY6538
Start yr. - 1971 End yr. - 2000

Probability	Temperature		
	24°F or lower	28°F or lower	32°F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	April 28	May 8	May 24
2 year in 10 later than--	April 24	May 5	May 20
5 year in 10 later than--	April 16	April 29	May 11
First freezing temperature in fall:			
1 yr in 10 earlier than--	October 8	September 26	September 21
2 yr in 10 earlier than--	October 13	September 30	September 24
5 yr in 10 earlier than--	October 24	October 8	October 1

FROST Station: ELIZABETHTOWN, NY2554
Start yr. - 1971 End yr. - 1993

Probability	Temperature		
	24°F or lower	28°F or lower	32°F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	May 5	May 17	June 5
2 year in 10 later than--	April 30	May 14	May 31
5 year in 10 later than--	April 22	May 7	May 23
First freezing temperature in fall:			
1 yr in 10 earlier than--	October 2	September 24	September 8
2 yr in 10 earlier than--	October 7	September 28	September 12
5 yr in 10 earlier than--	October 17	October 6	September 21

Table 2.—Freeze Dates in the Spring and Fall—Continued

FROST Station: LAKE PLACID 2 S, NY4555
Start yr. - 1971   End yr. - 2000

Probability	Temperature: 24°F or lower	28°F or lower	32°F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	May 19	June 2	June 22
2 year in 10 later than--	May 15	May 29	June 17
5 year in 10 later than--	May 6	May 22	June 7
First freezing temperature in fall:			
1 yr in 10 earlier than--	September 22	September 9	August 29
2 yr in 10 earlier than--	September 27	September 14	September 2
5 yr in 10 earlier than--	October 5	September 25	September 10

FROST Station: NEWCOMB 3 E, NY5714
Start yr. - 1971   End yr. - 2000

Probability	Temperature: 24°F or lower	28°F or lower	32°F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	May 9	June 3	June 28
2 year in 10 later than--	May 5	May 29	June 19
5 year in 10 later than--	April 26	May 19	June 3
First freezing temperature in fall:			
1 yr in 10 earlier than--	October 1	September 15	August 26
2 yr in 10 earlier than--	October 7	September 19	September 1
5 yr in 10 earlier than--	October 18	September 26	September 12

Table 2.—Freeze Dates in the Spring and Fall—Continued

FROST Station: MOUNT MANSFIELD, VT5416
Start yr. - 1971 End yr. - 2000

Probability	Temperature		
	24^{o}F or lower	28^{o}F or lower	32^{o}F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	June 3	June 10	June 28
2 year in 10 later than--	May 27	June 4	June 21
5 year in 10 later than--	May 15	May 24	June 8
First freezing temperature in fall:			
1 yr in 10 earlier than--	September 21	September 14	August 29
2 yr in 10 earlier than--	September 25	September 18	September 2
5 yr in 10 earlier than--	October 2	September 25	September 11

Table 3.—Growing Season

GROWTH Station: PERU 2 WSW, NY6538
Start yr. - 1971 End yr. – 2000

Probability	Daily Minimum Temperature		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	174	147	126
8 years in 10	179	152	131
5 years in 10	191	163	143
2 years in 10	202	173	154
1 year in 10	208	179	160

GROWTH Station: ELIZABETHTOWN, NY2554
Start yr. - 1971 End yr. - 1993

Probability	Daily Minimum Temperature		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	158	135	104
8 years in 10	165	141	109
5 years in 10	179	152	120
2 years in 10	192	164	131
1 year in 10	199	170	137

Table 3.—Growing Season—Continued

GROWTH Station: LAKE PLACID 2 S, NY4555
Start yr. - 1971 End yr. - 2000

Probability	Daily Minimum Temperature		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	134	108	74
8 years in 10	140	114	81
5 years in 10	151	125	94
2 years in 10	163	137	108
1 year in 10	169	142	115

GROWTH Station: NEWCOMB 3 E, NY5714
Start yr. - 1971 End yr. - 2000

Probability	Daily Minimum Temperature		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	147	108	65
8 years in 10	157	115	76
5 years in 10	174	129	98
2 years in 10	192	143	121
1 year in 10	201	150	132

Table 3.—Growing Season—Continued

GROWTH Station: MOUNT MANSFIELD, VT5416
Start yr. - 1971 End yr. - 2000

Probability	Daily Minimum Temperature		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	118	99	69
8 years in 10	125	107	78
5 years in 10	140	124	94
2 years in 10	154	140	111
1 year in 10	161	148	120

Table 4.—Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
10A	Pleasant Lake-Burnt Vly complex, 0 to 2 percent slopes	4,260	0.3
13A	Burnt Vly-Rumney-Pleasant Lake complex, 0 to 2 percent slopes	11,751	1.0
29C	Burnt Vly-Colton-Rumney complex, 0 to 15 percent slopes	3,792	0.3
113A	Ondawa-Rumney complex, 0 to 3 percent slopes	1,054	*
123A	Lovewell-Cornish complex, 0 to 2 percent slopes	142	*
350B	Duxbury fine sandy loam, 3 to 15 percent slopes, very stony	1,093	*
363A	Adams loamy sand, 0 to 3 percent slopes	326	*
363B	Adams loamy sand, 3 to 15 percent slopes	1,132	*
363D	Adams loamy sand, 15 to 35 percent slopes	1,242	0.1
363F	Adams loamy sand, 35 to 60 percent slopes	612	*
365A	Naumburg-Croghan complex, 0 to 3 percent slopes	504	*
367A	Searsport-Haplosaprists-Naumburg complex, 0 to 3 percent slopes	1,861	0.2
375A	Colton-Adams complex, 0 to 3 percent slopes	1,128	*
375C	Colton-Adams complex, 3 to 15 percent slopes	3,638	0.3
375D	Colton-Adams complex, 15 to 35 percent slopes	2,304	0.2
375F	Colton-Adams complex, 35 to 60 percent slopes	914	*
649C	Monadnock-Tunbridge-Tahawus complex, 0 to 15 percent slopes, rocky, very bouldery	15,050	1.2
650C	Monadnock-Adams-Colton complex, 3 to 15 percent slopes, bouldery	2,322	0.2
650D	Monadnock-Adams-Colton complex, 15 to 35 percent slopes, bouldery	3,274	0.3
651D	Monadnock-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery	27,570	2.2
653C	Monadnock fine sandy loam, 3 to 15 percent slopes, very bouldery	7,486	0.6
653D	Monadnock fine sandy loam, 15 to 35 percent slopes, very bouldery	10,079	0.8
655B	Sunapee-Monadnock complex, 3 to 15 percent slopes, very bouldery	4,852	0.4
657C	Monadnock-Tahawus complex, 3 to 15 percent slopes, very bouldery	15,445	1.3
657D	Monadnock-Tahawus complex, 15 to 35 percent slopes, very bouldery	2,735	0.2
661C	Hermon gravelly loamy sand, 3 to 15 percent slopes, very bouldery	1,189	*
661D	Hermon gravelly loamy sand, 15 to 35 percent slopes, very bouldery	1,769	0.1
661F	Hermon gravelly loamy sand, 35 to 60 percent slopes, very bouldery	333	*
705B	Adirondack-Tahawus complex, 0 to 8 percent slopes, very bouldery	13,523	1.1
721C	Becket-Tunbridge-Skerry complex, 3 to 15 percent slopes, rocky, very bouldery	16,054	1.3
721D	Becket-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery	70,072	5.7
721F	Becket-Tunbridge complex, 35 to 60 percent slopes, rocky, very bouldery	3,792	0.3
723C	Becket fine sandy loam, 3 to 15 percent slopes, very bouldery	9,561	0.8
723D	Becket fine sandy loam, 15 to 35 percent slopes, very bouldery	23,765	1.9
723F	Becket fine sandy loam, 35 to 60 percent slopes, very bouldery	748	*
725B	Skerry-Becket complex, 3 to 15 percent slopes, very bouldery	21,361	1.7
727B	Skerry-Adirondack complex, 0 to 8 percent slopes, very bouldery	19,845	1.6
831C	Tunbridge-Lyman complex, 3 to 15 percent slopes, very rocky, very bouldery	4,784	0.4
831D	Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery	60,974	5.0
831F	Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky, very bouldery	28,095	2.3
833C	Tunbridge-Adirondack-Lyman complex, 3 to 15 percent slopes, very rocky, very bouldery	2,571	0.2
851D	Lyman-Knob Lock complex, 15 to 35 percent slopes, very rocky, very bouldery	4,675	0.4
851F	Lyman-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery	46,666	3.8
881F	Rock outcrop-Knob Lock-Lyman complex, 35 to 60 percent slopes, very bouldery	5,169	0.4
930C	Mundalite-Rawsonville-Ampersand complex, 3 to 15 percent slopes, rocky, very bouldery	5,618	0.5
931D	Mundalite-Rawsonville complex, 15 to 35 percent slopes, rocky, very bouldery	48,663	4.0
931F	Mundalite-Rawsonville complex, 35 to 60 percent slopes, rocky, very bouldery	5,676	0.5
932C	Mundalite-Ampersand complex, 0 to 15 percent slopes, very bouldery	9,815	0.8
932D	Mundalite-Ampersand complex, 15 to 35 percent slopes, very bouldery	16,810	1.4

See footnote at end of table.

Table 4.—Acreage and Proportionate Extent of the Soils—Continued

Map symbol	Soil name	Acres	Percent
934C	Ampersand-Wilmington complex, 0 to 15 percent slopes, very bouldery	3,633	0.3
941C	Rawsonville-Hogback complex, 3 to 15 percent slopes, very rocky, very bouldery	1,855	0.2
941D	Rawsonville-Hogback complex, 15 to 35 percent slopes, very rocky, very bouldery	30,172	2.5
941F	Rawsonville-Hogback complex, 35 to 60 percent slopes, very rocky, very bouldery	40,919	3.3
944D	Hogback-Knob Lock complex, 15 to 35 percent slopes, very rocky, very bouldery	2,777	0.2
944F	Hogback-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery	43,279	3.5
948F	Rock outcrop-Knob Lock-Hogback complex, 35 to 60 percent slopes, very bouldery	2,997	0.2
971D	Esther-Wallface complex, 15 to 35 percent slopes, rocky, very bouldery	5,286	0.4
975C	Andic Cryaquods-Esther complex, 3 to 15 percent slopes, very bouldery	438	*
975D	Esther-Andic Cryaquods complex, 15 to 35 percent slopes, very bouldery	629	*
992D	Wallface-Skylight complex, 15 to 35 percent slopes, very rocky, very bouldery	7,009	0.6
993F	Santanoni-Skylight complex, 35 to 80 percent slopes, very rocky, very bouldery	18,458	1.5
995D	Ricker-Couchsachraga-Skylight complex, 15 to 35 percent slopes, very rocky, very bouldery	1,638	0.1
995F	Ricker-Couchsachraga-Skylight complex, 35 to 80 percent slopes, very rocky, very bouldery	38,255	3.1
998F	Rock outcrop-Ricker-Skylight complex, 35 to 80 percent slopes, very bouldery	5,034	0.4
AdA	Adams loamy sand, 0 to 3 percent slopes	1,971	0.2
AdB	Adams loamy sand, 3 to 8 percent slopes	4,800	0.4
AdC	Adams loamy sand, 8 to 15 percent slopes	4,519	0.4
AdD	Adams loamy sand, 15 to 25 percent slopes	2,523	0.2
AdE	Adams loamy sand, 25 to 45 percent slopes	3,301	0.3
AkA	Adirondack fine sandy loam, 0 to 3 percent slopes, very bouldery	637	*
AkB	Adirondack fine sandy loam, 3 to 8 percent slopes, very bouldery	5,624	0.5
AmB	Amenia fine sandy loam, 2 to 8 percent slopes	2,629	0.2
AmC	Amenia fine sandy loam, 8 to 15 percent slopes	813	*
BcB	Becket fine sandy loam, 3 to 8 percent slopes	1,443	0.1
BcC	Becket fine sandy loam, 8 to 15 percent slopes	987	*
BeB	Becket fine sandy loam, 3 to 8 percent slopes, very bouldery	3,895	0.3
BeC	Becket fine sandy loam, 8 to 15 percent slopes, very bouldery	11,370	0.9
BeD	Becket fine sandy loam, 15 to 35 percent slopes, very bouldery	9,503	0.8
BeF	Becket fine sandy loam, 35 to 60 percent slopes, very bouldery	800	*
BkC	Becket-Tunbridge complex, 8 to 15 percent slopes, rocky, very bouldery	6,649	0.5
BkD	Becket-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery	18,796	1.5
BoB	Bombay gravelly loam, 3 to 8 percent slopes	400	*
BuA	Bucksport mucky peat, 0 to 1 percent slopes	261	*
BvA	Burnt Vly peat, 0 to 1 percent slopes	2,861	0.2
CaA	Catden muck, 0 to 1 percent slopes	595	*
CbA	Colton very gravelly loamy sand, 0 to 3 percent slopes, very bouldery	195	*
CbB	Colton very gravelly loamy sand, 3 to 8 percent slopes, very bouldery	870	*
CbC	Colton very gravelly loamy sand, 8 to 15 percent slopes, very bouldery	1,099	*
CbD	Colton very gravelly loamy sand, 15 to 35 percent slopes, very bouldery	616	*
CgB	Cayuga silty clay loam, 3 to 8 percent slopes	877	*
CgC	Cayuga silty clay loam, 8 to 15 percent slopes	619	*
ChB	Champlain loamy sand, 3 to 8 percent slopes	2,791	0.2
ChC	Champlain loamy sand, 8 to 15 percent slopes	1,767	0.1
ChD	Champlain loamy sand, 15 to 25 percent slopes	1,078	*
ChE	Champlain loamy sand, 25 to 45 percent slopes	812	*
CkA	Charles silt loam, 0 to 2 percent slopes	338	*
ClB	Charlton gravelly fine sandy loam, 3 to 8 percent slopes	357	*
ClC	Charlton gravelly fine sandy loam, 8 to 15 percent slopes	458	*
ClD	Charlton gravelly fine sandy loam, 15 to 25 percent slopes	326	*
CnC	Charlton-Chatfield complex, 8 to 15 percent slopes, rocky, very stony	402	*
CnD	Charlton-Chatfield complex, 15 to 35 percent slopes, rocky, very stony	1,336	0.1

See footnote at end of table.

Table 4.—Acreage and Proportionate Extent of the Soils—Continued

Map symbol	Soil name	Acres	Percent
CoB	Chatfield-Hollis complex, 3 to 8 percent slopes, very rocky, very stony	368	*
CoC	Chatfield-Hollis complex, 8 to 15 percent slopes, very rocky, very stony	2,238	0.2
CoD	Chatfield-Hollis complex, 15 to 35 percent slopes, very rocky, very stony	3,689	0.3
CoF	Chatfield-Hollis complex, 35 to 60 percent slopes, very rocky, very stony	825	*
CpB	Churchville loam, 2 to 8 percent slopes	454	*
CqA	Claverack loamy fine sand, 0 to 3 percent slopes	240	*
CqB	Claverack loamy fine sand, 3 to 8 percent slopes	1,047	*
CrB	Collamer silt loam, 2 to 8 percent slopes	791	*
CsA	Colton very gravelly loamy sand, 0 to 3 percent slopes	881	*
CsB	Colton very gravelly loamy sand, 3 to 8 percent slopes	1,829	0.1
CsC	Colton very gravelly loamy sand, 8 to 15 percent slopes	737	*
CsD	Colton very gravelly loamy sand, 15 to 25 percent slopes	453	*
CsE	Colton very gravelly loamy sand, 25 to 45 percent slopes	534	*
CtA	Cornish silt loam, 0 to 2 percent slopes	272	*
CuA	Cosad loamy fine sand, 0 to 3 percent slopes	1,004	*
CuB	Cosad loamy fine sand, 3 to 8 percent slopes	298	*
CvA	Covington clay, 0 to 3 percent slopes	2,170	0.2
CwA	Croghan fine sand, 0 to 3 percent slopes	709	*
CwB	Croghan fine sand, 3 to 8 percent slopes	933	*
DeA	Deerfield loamy sand, 0 to 3 percent slopes	1,131	*
DeB	Deerfield loamy sand, 3 to 8 percent slopes	441	*
DpC	Depeyster silt loam, 8 to 15 percent slopes	608	*
DpD	Depeyster silt loam, 15 to 25 percent slopes	525	*
DuC	Dunkirk silt loam, 8 to 15 percent slopes	916	*
DuD	Dunkirk silt loam, 15 to 25 percent slopes	528	*
DuE	Dunkirk silt loam, 25 to 45 percent slopes	682	*
DxB	Duxbury fine sandy loam, 3 to 8 percent slopes	761	*
ElB	Elmridge fine sandy loam, 2 to 8 percent slopes	509	*
FaD	Farmington loam, 15 to 35 percent slopes, very rocky, very stony	374	*
FcB	Factoryville-Colonie complex, 3 to 8 percent slopes	622	*
FcC	Factoryville-Colonie complex, 8 to 15 percent slopes	519	*
FcD	Factoryville-Colonie complex, 15 to 25 percent slopes	310	*
FdF	Factoryville-Dunkirk complex, 25 to 60 percent slopes	795	*
FgB	Farmington-Galway complex, 3 to 15 percent slopes, very rocky, very stony	1,363	0.1
FkF	Farmington-Rock outcrop complex, 35 to 60 percent slopes, very stony	259	*
FnB	Fernlake loamy fine sand, 3 to 8 percent slopes, very bouldery	2,493	0.2
FnC	Fernlake loamy fine sand, 8 to 15 percent slopes, very bouldery	4,297	0.4
FnD	Fernlake loamy fine sand, 15 to 35 percent slopes, very bouldery	2,492	0.2
FnF	Fernlake loamy fine sand, 35 to 60 percent slopes, very bouldery	526	*
FrB	Factoryville loamy fine sand, 2 to 8 percent slopes	463	*
FuA	Fluvaquents-Udifluvents complex, frequently flooded, nearly level	2,845	0.2
GeB	Georgia loam, 3 to 8 percent slopes	660	*
GeC	Georgia loam, 8 to 15 percent slopes	391	*
GoA	Gougeville mucky loamy fine sand, 0 to 3 percent slopes	320	*
HaB	Hailesboro very fine sandy loam, 3 to 8 percent slopes	617	*
HcB	Howard very cobbly loam, 2 to 8 percent slopes	209	*
HcC	Howard very cobbly loam, 8 to 15 percent slopes	341	*
HcD	Howard very cobbly loam, 15 to 25 percent slopes	622	*
HdB	Hartland very fine sandy loam, 2 to 8 percent slopes	367	*
HgB	Howard gravelly loam, 2 to 8 percent slopes	965	*
HlB	Howard very cobbly fine sandy loam, 2 to 8 percent slopes, loamy substratum	270	*
HlC	Howard very cobbly fine sandy loam, 8 to 15 percent slopes, loamy substratum	484	*
HmB	Howard gravelly fine sandy loam, 2 to 8 percent slopes, loamy substratum	387	*
HnC	Hermon gravelly loamy sand, 8 to 15 percent slopes, very bouldery	649	*
HnD	Hermon gravelly loamy sand, 15 to 35 percent slopes, very bouldery	761	*
HrF	Hogback-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery	1,518	0.1
HsD	Hollis-Rock outcrop complex, 15 to 35 percent slopes, very stony	699	*
HsF	Hollis-Rock outcrop complex, 35 to 60 percent slopes, very stony	2,460	0.2
KaB	Kalurah silt loam, 3 to 8 percent slopes	3,654	0.3
KaC	Kalurah silt loam, 8 to 15 percent slopes	417	*

See footnote at end of table.

Table 4.—Acreage and Proportionate Extent of the Soils—Continued

Map symbol	Soil name	Acres	Percent
KgB	Kalurah silt loam, 3 to 8 percent slopes, very stony	1,516	0.1
KgC	Kalurah silt loam, 8 to 15 percent slopes, very stony	865	*
KyA	Kingsbury silty clay loam, 0 to 3 percent slopes	7,566	0.6
KyB	Kingsbury silty clay loam, 3 to 8 percent slopes	4,342	0.4
LnA	Livingston mucky silty clay loam, 0 to 3 percent slopes	481	*
LvA	Lovewell very fine sandy loam, 0 to 3 percent slopes	324	*
LyD	Lyman-Knob Lock complex, 15 to 35 percent slopes, very rocky, very bouldery	2,161	0.2
LyF	Lyman-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery	11,862	1.0
MaB	Malone silt loam, 3 to 8 percent slopes	1,635	0.1
MbB	Malone silt loam, 3 to 8 percent slopes, very stony	1,719	0.1
McA	Massena gravelly silt loam, 0 to 3 percent slopes	538	*
McB	Massena gravelly silt loam, 3 to 8 percent slopes	1,052	*
MdA	Medomak mucky silt loam, 0 to 3 percent slopes	416	*
MhB	Monadnock fine sandy loam, 3 to 8 percent slopes	2,436	0.2
MhC	Monadnock fine sandy loam, 8 to 15 percent slopes	1,236	0.1
MkB	Monadnock fine sandy loam, 3 to 8 percent slopes, very bouldery	4,106	0.3
MkC	Monadnock fine sandy loam, 8 to 15 percent slopes, very bouldery	15,413	1.3
MkD	Monadnock fine sandy loam, 15 to 35 percent slopes, very bouldery	7,242	0.6
MkF	Monadnock fine sandy loam, 35 to 60 percent slopes, very bouldery	388	*
MmF	Monadnock-Adams complex, 25 to 60 percent slopes, bouldery	2,184	0.2
MnC	Monadnock-Tunbridge complex, 8 to 15 percent slopes, rocky, very bouldery	8,520	0.7
MnD	Monadnock-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery	10,305	0.8
MnF	Monadnock-Tunbridge complex, 35 to 60 percent slopes, rocky, very bouldery	1,859	0.2
MoA	Mooers loamy fine sand, 0 to 3 percent slopes	499	*
MuC	Mundalite fine sandy loam, 8 to 15 percent slopes, very bouldery	1,051	*
MuD	Mundalite fine sandy loam, 15 to 35 percent slopes, very bouldery	876	*
MwC	Mundalite-Rawsonville complex, 3 to 15 percent slopes, rocky, very bouldery	447	*
MwD	Mundalite-Rawsonville complex, 15 to 35 percent slopes, rocky, very bouldery	2,870	0.2
NaA	Naumburg loamy fine sand, 0 to 3 percent slopes	1,290	0.1
NeB	Nellis fine sandy loam, 3 to 8 percent slopes	765	*
NeC	Nellis fine sandy loam, 8 to 15 percent slopes	1,083	*
NeD	Nellis fine sandy loam, 15 to 25 percent slopes	679	*
NgA	Niagara silt loam, 0 to 3 percent slopes	622	*
NgB	Niagara silt loam, 3 to 8 percent slopes	567	*
NvB	Nicholville silt loam, 3 to 8 percent slopes	877	*
OmA	Occum fine sandy loam, 0 to 3 percent slopes	674	*
OwA	Ondawa sandy loam, 0 to 3 percent slopes	934	*
Pc	Pits, quarry	139	*
Pd	Pits, sand and gravel	792	*
PfB	Pittsfield loam, 3 to 8 percent slopes	408	*
PfC	Pittsfield loam, 8 to 15 percent slopes	669	*
PfD	Pittsfield loam, 15 to 25 percent slopes	475	*
PfE	Pittsfield loam, 25 to 45 percent slopes	256	*
PkA	Pleasant Lake peat, 0 to 2 percent slopes	1,956	0.2
PlB	Pittsfield-Chatfield complex, 3 to 8 percent slopes, rocky, very stony	433	*
PlC	Pittsfield-Chatfield complex, 8 to 15 percent slopes, rocky, very stony	999	*
PlD	Pittsfield-Chatfield complex, 15 to 35 percent slopes, rocky, very stony	1,198	*
PlF	Pittsfield-Chatfield complex, 35 to 60 percent slopes, rocky, very stony	409	*
PoA	Podunk very fine sandy loam, 0 to 3 percent slopes	1,739	0.1
PrA	Pootatuck fine sandy loam, 0 to 3 percent slopes	860	*
PtB	Pyrities fine sandy loam, 3 to 8 percent slopes	2,540	0.2
PtC	Pyrities fine sandy loam, 8 to 15 percent slopes	3,123	0.3
PtD	Pyrities fine sandy loam, 15 to 25 percent slopes	1,115	*
PuC	Pyrities fine sandy loam, 8 to 15 percent slopes, very stony	1,781	0.1
PuD	Pyrities fine sandy loam, 15 to 35 percent slopes, very stony	1,925	0.2
PwC	Pyrities-Nehasne complex, 8 to 15 percent slopes, rocky, very stony	1,803	0.1
PwD	Pyrities-Nehasne complex, 15 to 35 percent slopes, rocky, very stony	3,426	0.3

See footnote at end of table.

Table 4.—Acreage and Proportionate Extent of the Soils—Continued

Map symbol	Soil name	Acres	Percent
PyC	Pyrities-Nehasne complex, 8 to 15 percent slopes, rocky	1,761	0.1
PyD	Pyrities-Nehasne complex, 15 to 25 percent slopes, rocky	528	*
RaC	Rawsonville-Hogback complex, 8 to 15 percent slopes, very rocky, very bouldery	226	*
RaD	Rawsonville-Hogback complex, 15 to 35 percent slopes, very rocky, very bouldery	2,294	0.2
RaF	Rawsonville-Hogback complex, 35 to 60 percent slopes, very rocky, very bouldery	1,068	*
RmA	Rippowam fine sandy loam, 0 to 3 percent slopes	2,127	0.2
RpF	Rock outcrop-Knob Lock-Lyman complex, 35 to 60 percent slopes, very bouldery	3,105	0.3
RsA	Roundabout silt loam, 0 to 3 percent slopes	775	*
RuA	Rumney loam, 0 to 3 percent slopes	1,637	0.1
RyA	Rumney-Burnt Vly complex, 0 to 3 percent slopes	4,881	0.4
SeA	Searsport peat, 0 to 3 percent slopes	992	*
SkB	Skerry loam, 3 to 8 percent slopes	1,177	*
SnB	Sunapee fine sandy loam, 3 to 8 percent slopes, very bouldery	3,666	0.3
SpB	Sunapee fine sandy loam, 3 to 8 percent slopes	674	*
SrB	Skerry loam, 3 to 8 percent slopes, very bouldery	7,679	0.6
SrC	Skerry loam, 8 to 15 percent slopes, very bouldery	4,370	0.4
StA	Stafford fine sandy loam, 0 to 3 percent slopes	1,215	*
SuA	Sun silt loam, 0 to 3 percent slopes	253	*
TaA	Tahawus peat, 0 to 5 percent slopes, very bouldery	4,186	0.3
TeA	Typic Endoaquolls, nearly level, very stony	1,628	0.1
ToA	Tonawanda silt loam, 0 to 3 percent slopes	275	*
TuC	Tunbridge-Lyman complex, 8 to 15 percent slopes, very rocky, very bouldery	5,306	0.4
TuD	Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery	21,708	1.8
TuF	Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky, very bouldery	10,278	0.8
UlC	Udorthents, nearly level through strongly sloping	1,112	*
UmF	Udorthents, mine spoil, nearly level through very steep	1,116	*
VeB	Vergennes silty clay loam, 3 to 8 percent slopes	10,858	0.9
VeC	Vergennes silty clay loam, 8 to 15 percent slopes	4,357	0.4
VeD	Vergennes silty clay loam, 15 to 25 percent slopes	3,158	0.3
VeE	Vergennes silty clay loam, 25 to 45 percent slopes	1,626	0.1
W	Water	77,434	6.3
WeA	Wegatchie silt loam, 0 to 3 percent slopes	401	*
WlA	Whallonsburg mucky peat, 0 to 2 percent slopes	426	*
WnA	Windsor loamy sand, 0 to 3 percent slopes	3,260	0.3
WnB	Windsor loamy sand, 3 to 8 percent slopes	3,160	0.3
WnC	Windsor loamy sand, 8 to 15 percent slopes	714	*
WnD	Windsor loamy sand, 15 to 25 percent slopes	840	*
WnE	Windsor loamy sand, 25 to 45 percent slopes	1,800	0.1
WoA	Wonsqueak muck, 0 to 2 percent slopes	870	*
	Total	1,225,900	100.0

* Less than 0.1 percent.

Table 5.—Prime and Other Important Farmland

(Only the soils considered prime or important farmland are listed. Urban or built-up areas of the soils listed are not considered prime or important farmland. If a soil is prime or important farmland only under certain conditions, the conditions are specified in parentheses after the soil name.)

Map symbol	Map unit name	Farmland Classification
113A	Ondawa-Rumney complex, 0 to 3 percent slopes	All areas are prime farmland
123A	Lovewell-Cornish complex, 0 to 2 percent slopes	All areas are prime farmland
AmB	Amenia fine sandy loam, 2 to 8 percent slopes	All areas are prime farmland
BcB	Becket fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland
BoB	Bombay gravelly loam, 3 to 8 percent slopes	All areas are prime farmland
CgB	Cayuga silty clay loam, 3 to 8 percent slopes	All areas are prime farmland
ClB	Charlton gravelly fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland
CqA	Claverack loamy fine sand, 0 to 3 percent slopes	All areas are prime farmland
CqB	Claverack loamy fine sand, 3 to 8 percent slopes	All areas are prime farmland
CrB	Collamer silt loam, 2 to 8 percent slopes	All areas are prime farmland
DxB	Duxbury fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland
ElB	Elmridge fine sandy loam, 2 to 8 percent slopes	All areas are prime farmland
FcB	Factoryville-Colonie complex, 3 to 8 percent slopes	All areas are prime farmland
FrB	Factoryville loamy fine sand, 2 to 8 percent slopes	All areas are prime farmland
GeB	Georgia loam, 3 to 8 percent slopes	All areas are prime farmland
HdB	Hartland very fine sandy loam, 2 to 8 percent slopes	All areas are prime farmland
KaB	Kalurah silt loam, 3 to 8 percent slopes	All areas are prime farmland
LvA	Lovewell very fine sandy loam, 0 to 3 percent slopes	All areas are prime farmland
MhB	Monadnock fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland
MoA	Mooers loamy fine sand, 0 to 3 percent slopes	All areas are prime farmland
NeB	Nellis fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland
NvB	Nicholville silt loam, 3 to 8 percent slopes	All areas are prime farmland
OmA	Occum fine sandy loam, 0 to 3 percent slopes	All areas are prime farmland
OwA	Ondawa sandy loam, 0 to 3 percent slopes	All areas are prime farmland
PfB	Pittsfield loam, 3 to 8 percent slopes	All areas are prime farmland
PoA	Podunk very fine sandy loam, 0 to 3 percent slopes	All areas are prime farmland
PrA	Pootatuck fine sandy loam, 0 to 3 percent slopes	All areas are prime farmland
PtB	Pyrities fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland
SkB	Skerry loam, 3 to 8 percent slopes	All areas are prime farmland
SpB	Sunapee fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland
363A	Adams loamy sand, 0 to 3 percent slopes	Farmland of statewide importance
365A	Naumburg-Croghan complex, 0 to 3 percent slopes	Farmland of statewide importance
375A	Colton-Adams complex, 0 to 3 percent slopes	Farmland of statewide importance
AdA	Adams loamy sand, 0 to 3 percent slopes	Farmland of statewide importance
AdB	Adams loamy sand, 3 to 8 percent slopes	Farmland of statewide importance
AmC	Amenia fine sandy loam, 8 to 15 percent slopes	Farmland of statewide importance
BcC	Becket fine sandy loam, 8 to 15 percent slopes	Farmland of statewide importance
CgC	Cayuga silty clay loam, 8 to 15 percent slopes	Farmland of statewide importance
ChB	Champlain loamy sand, 3 to 8 percent slopes	Farmland of statewide importance
ChC	Champlain loamy sand, 8 to 15 percent slopes	Farmland of statewide importance
CkA	Charles silt loam, 0 to 2 percent slopes	Farmland of statewide importance
ClC	Charlton gravelly fine sandy loam, 8 to 15 percent slopes	Farmland of statewide importance
CsA	Colton very gravelly loamy sand, 0 to 3 percent slopes	Farmland of statewide importance
CsB	Colton very gravelly loamy sand, 3 to 8 percent slopes	Farmland of statewide importance
CwA	Croghan fine sand, 0 to 3 percent slopes	Farmland of statewide importance
CwB	Croghan fine sand, 3 to 8 percent slopes	Farmland of statewide importance
DeA	Deerfield loamy sand, 0 to 3 percent slopes	Farmland of statewide importance
DeB	Deerfield loamy sand, 3 to 8 percent slopes	Farmland of statewide importance
DpC	Depeyster silt loam, 8 to 15 percent slopes	Farmland of statewide importance
DuC	Dunkirk silt loam, 8 to 15 percent slopes	Farmland of statewide importance
FcC	Factoryville-Colonie complex, 8 to 15 percent slopes	Farmland of statewide importance
GeC	Georgia loam, 8 to 15 percent slopes	Farmland of statewide importance
HcB	Howard very cobbly loam, 2 to 8 percent slopes	Farmland of statewide importance
HgB	Howard gravelly loam, 2 to 8 percent slopes	Farmland of statewide importance
HlB	Howard very cobbly fine sandy loam, 2 to 8 percent slopes, loamy substratum	Farmland of statewide importance
HmB	Howard gravelly fine sandy loam, 2 to 8 percent slopes, loamy substratum	Farmland of statewide importance
KaC	Kalurah silt loam, 8 to 15 percent slopes	Farmland of statewide importance
KyA	Kingsbury silty clay loam, 0 to 3 percent slopes	Farmland of statewide importance

Table 5.—Prime and Other Important Farmland—Continued

Map symbol	Map unit name	Farmland Classification
KyB	Kingsbury silty clay loam, 3 to 8 percent slopes	Farmland of statewide importance
MhC	Monadnock fine sandy loam, 8 to 15 percent slopes	Farmland of statewide importance
NaA	Naumburg loamy fine sand, 0 to 3 percent slopes	Farmland of statewide importance
NeC	Nellis fine sandy loam, 8 to 15 percent slopes	Farmland of statewide importance
PfC	Pittsfield loam, 8 to 15 percent slopes	Farmland of statewide importance
PtC	Pyrities fine sandy loam, 8 to 15 percent slopes	Farmland of statewide importance
PyC	Pyrities-Nehasne complex, 8 to 15 percent slopes, rocky	Farmland of statewide importance
RmA	Rippowam fine sandy loam, 0 to 3 percent slopes	Farmland of statewide importance
RuA	Rumney loam, 0 to 3 percent slopes	Farmland of statewide importance
RyA	Rumney-Burnt Vly complex, 0 to 3 percent slopes	Farmland of statewide importance
StA	Stafford fine sandy loam, 0 to 3 percent slopes	Farmland of statewide importance
SuA	Sun silt loam, 0 to 3 percent slopes	Farmland of statewide importance
VeB	Vergennes silty clay loam, 3 to 8 percent slopes	Farmland of statewide importance
VeC	Vergennes silty clay loam, 8 to 15 percent slopes	Farmland of statewide importance
CpB	Churchville loam, 2 to 8 percent slopes	Prime farmland if drained
CtA	Cornish silt loam, 0 to 2 percent slopes	Prime farmland if drained
CuA	Cosad loamy fine sand, 0 to 3 percent slopes	Prime farmland if drained
CuB	Cosad loamy fine sand, 3 to 8 percent slopes	Prime farmland if drained
HaB	Hailesboro very fine sandy loam, 3 to 8 percent slopes	Prime farmland if drained
MaB	Malone silt loam, 3 to 8 percent slopes	Prime farmland if drained
McA	Massena gravelly silt loam, 0 to 3 percent slopes	Prime farmland if drained
McB	Massena gravelly silt loam, 3 to 8 percent slopes	Prime farmland if drained
NgA	Niagara silt loam, 0 to 3 percent slopes	Prime farmland if drained
NgB	Niagara silt loam, 3 to 8 percent slopes	Prime farmland if drained
RsA	Roundabout silt loam, 0 to 3 percent slopes	Prime farmland if drained
ToA	Tonawanda silt loam, 0 to 3 percent slopes	Prime farmland if drained

Table 6.—Nonirrigated Yields by Map Unit Component

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.)

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
10A:						
Pleasant Lake	5w	---	---	---	---	---
Burnt Vly	5w	---	---	---	---	---
13A:						
Burnt Vly	5w	---	---	---	---	---
Rumney	4w	---	14.00	3.50	2.50	6.00
Pleasant Lake	5w	---	---	---	---	---
29C:						
Burnt Vly	5w	---	---	---	---	---
Colton	4e	3.50	14.00	3.50	3.00	5.50
Rumney	4w	---	14.00	3.50	2.50	6.00
113A:						
Ondawa	1	6.00	23.00	5.00	5.50	8.00
Rumney	4w	---	14.00	3.50	2.50	6.00
123A:						
Lovewell	2w	4.50	22.00	5.00	4.50	8.50
Cornish	3w	---	16.00	3.50	3.00	6.00
350B:						
Duxbury, very stony	6s	---	---	---	---	5.00
363A:						
Adams	3s	4.50	16.00	3.50	4.00	6.00
363B:						
Adams	4e	4.50	16.00	3.50	4.00	6.00
363D:						
Adams	6e	---	---	2.50	---	4.50
363F:						
Adams	7e	---	---	2.50	---	4.50
365A:						
Naumburg	3w	---	15.00	3.50	2.50	6.00
Croghan	2w	4.50	17.00	3.50	3.50	6.00
367A:						
Searsport	5w	---	13.00	3.00	---	5.00
Haplosaprists	5w	---	---	---	---	---
Naumburg	3w	---	15.00	3.50	2.50	6.00
375A:						
Colton	3s	3.50	14.00	3.50	3.00	5.50
Adams	3s	4.50	16.00	3.50	4.00	6.00

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
375C:						
Colton	4e	3.50	14.00	3.50	3.00	5.50
Adams	4e	4.50	16.00	3.50	4.00	6.00
375D:						
Colton	7e	---	---	2.50	---	4.00
Adams	6e	---	---	2.50	---	4.50
375F:						
Colton	7e	---	---	2.50	---	4.00
Adams	7e	---	---	2.50	---	4.50
649C:						
Monadnock, rocky, very bouldery	6s	---	---	---	---	4.00
Tunbridge, rocky, very bouldery	6s	---	---	---	---	3.10
Tahawus, very bouldery	6s	---	---	---	---	3.00
650C:						
Monadnock, bouldery	6s	---	---	---	---	4.00
Adams	4e	4.50	16.00	3.50	4.00	6.00
Colton	4e	3.50	14.00	3.50	3.00	5.50
650D:						
Monadnock, bouldery	6s	---	---	---	---	4.00
Adams	6e	---	---	2.50	---	4.50
Colton	7e	---	---	2.50	---	4.00
651D:						
Monadnock, rocky, very bouldery	7s	---	---	---	---	4.00
Tunbridge, rocky, very bouldery	7s	---	---	---	---	3.10
653C:						
Monadnock, very bouldery	6s	---	---	---	---	4.00
653D:						
Monadnock, very bouldery	7s	---	---	---	---	4.00
655B:						
Sunapee, very bouldery	6s	---	---	---	---	4.00
Monadnock, very bouldery	6s	---	---	---	---	4.00
657C:						
Monadnock, very bouldery	6s	---	---	---	---	4.00
Tahawus, very bouldery	6s	---	---	---	---	3.00
657D:						
Monadnock, very bouldery	7s	---	---	---	---	4.00
Tahawus, very bouldery	6s	---	---	---	---	3.00

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
661C:						
Hermon, very bouldery	6s	---	---	---	---	3.10
661D:						
Hermon, very bouldery	7s	---	---	---	---	3.10
661F:						
Hermon, very bouldery	7s	---	---	---	---	3.10
705B:						
Adirondack, very bouldery	6s	---	---	---	---	3.10
Tahawus, very bouldery	6s	---	---	---	---	3.00
721C:						
Becket, rocky, very bouldery	6s	---	---	---	---	3.10
Tunbridge, rocky, very bouldery	6s	---	---	---	---	3.10
Skerry, rocky, very bouldery	6s	---	---	---	---	4.00
721D:						
Becket, rocky, very bouldery	7s	---	---	---	---	3.10
Tunbridge, rocky, very bouldery	7s	---	---	---	---	3.10
721F:						
Becket, rocky, very bouldery	7s	---	---	---	---	3.10
Tunbridge, rocky, very bouldery	7s	---	---	---	---	3.10
723C:						
Becket, very bouldery	6s	---	---	---	---	3.10
723D:						
Becket, very bouldery	7s	---	---	---	---	3.10
723F:						
Becket, very bouldery	7s	---	---	---	---	3.10
725B:						
Skerry, very bouldery	6s	---	---	---	---	4.00
Becket, very bouldery	6s	---	---	---	---	3.10
727B:						
Skerry, very bouldery	6s	---	---	---	---	4.00
Adirondack, very bouldery	6s	---	---	---	---	3.10
831C:						
Tunbridge, very rocky, very bouldery	6s	---	---	---	---	3.10

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
831C:						
Lyman, very rocky, very bouldery	6s	---	---	---	---	1.50
831D:						
Tunbridge, very rocky, very bouldery	7s	---	---	---	---	3.10
Lyman, very rocky, very bouldery	7s	---	---	---	---	1.50
831F:						
Tunbridge, very rocky, very bouldery	7s	---	---	---	---	3.10
Lyman, very rocky, very bouldery	7s	---	---	---	---	1.50
833C:						
Tunbridge, very rocky, very bouldery	6s	---	---	---	---	3.10
Adirondack, very rocky, very bouldery	6s	---	---	---	---	3.10
Lyman, very rocky, very bouldery	6s	---	---	---	---	1.50
851D:						
Lyman, very rocky, very bouldery	7s	---	---	---	---	1.50
Knob Lock, very rocky, very bouldery	7s	---	---	---	---	---
851F:						
Lyman, very rocky, very bouldery	7s	---	---	---	---	1.50
Knob Lock, very rocky, very bouldery	7s	---	---	---	---	---
881F:						
Rock outcrop, very bouldery	7s	---	---	---	---	---
Knob Lock, very rocky, very bouldery	7s	---	---	---	---	---
Lyman, very rocky, very bouldery	7s	---	---	---	---	1.50
930C:						
Mundalite, rocky, very bouldery	6s	---	---	---	---	---
Rawsonville, rocky, very bouldery	6s	---	---	---	---	---
Ampersand, rocky, very bouldery	6s	---	---	---	---	---

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
931D:						
Mundalite, rocky, very bouldery	7s	---	---	---	---	---
Rawsonville, rocky, very bouldery	7s	---	---	---	---	---
931F:						
Mundalite, rocky, very bouldery	7s	---	---	---	---	---
Rawsonville, rocky, very bouldery	7s	---	---	---	---	---
932C:						
Mundalite, very bouldery	6s	---	---	---	---	---
Ampersand, very bouldery	6s	---	---	---	---	---
932D:						
Mundalite, very bouldery	7s	---	---	---	---	---
Ampersand, very bouldery	7s	---	---	---	---	---
934C:						
Ampersand, very bouldery	6s	---	---	---	---	---
Wilmington, very bouldery	6s	---	---	---	---	---
941C:						
Rawsonville, very rocky, very bouldery	6s	---	---	---	---	---
Hogback, very rocky, very bouldery	6s	---	---	---	---	---
941D:						
Rawsonville, very rocky, very bouldery	7s	---	---	---	---	---
Hogback, very rocky, very bouldery	7s	---	---	---	---	---
941F:						
Rawsonville, very rocky, very bouldery	7s	---	---	---	---	---
Hogback, very rocky, very bouldery	7s	---	---	---	---	---
944D:						
Hogback, very rocky, very bouldery	7s	---	---	---	---	---
Knob Lock, very rocky, very bouldery	7s	---	---	---	---	---
944F:						
Hogback, very rocky, very bouldery	7s	---	---	---	---	---

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
944F:						
Knob Lock, very rocky, very bouldery	7s	---	---	---	---	---
948F:						
Rock outcrop, very bouldery	7s	---	---	---	---	---
Knob Lock, very bouldery	7s	---	---	---	---	---
Hogback, very bouldery	7s	---	---	---	---	---
971D:						
Esther, rocky, very bouldery	7s	---	---	---	---	---
Wallface, rocky, very bouldery	7s	---	---	---	---	---
975C:						
Andic Cryaquods, very bouldery	6s	---	---	---	---	---
Esther, very bouldery	6s	---	---	---	---	---
975D:						
Esther, very bouldery	7s	---	---	---	---	---
Andic Cryaquods, very bouldery	7s	---	---	---	---	---
992D:						
Wallface, very rocky, very bouldery	7s	---	---	---	---	---
Skylight, very rocky, very bouldery	7s	---	---	---	---	---
993F:						
Santanoni, very rocky, very bouldery	7s	---	---	---	---	---
Skylight, very rocky, very bouldery	7s	---	---	---	---	---
995D:						
Ricker, very rocky, very bouldery	7s	---	---	---	---	---
Couchsachraga, very rocky, very bouldery	7s	---	---	---	---	---
Skylight, very rocky, very bouldery	7s	---	---	---	---	---
995F:						
Ricker, very rocky, very bouldery	7s	---	---	---	---	---
Couchsachraga, very rocky, very bouldery	7s	---	---	---	---	---

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
995F:						
Skylight, very rocky, very bouldery	7s	---	---	---	---	---
998F:						
Rock outcrop, very bouldery	7s	---	---	---	---	---
Ricker, very bouldery	7s	---	---	---	---	---
Skylight, very bouldery	7s	---	---	---	---	---
AdA:						
Adams	3s	4.50	16.00	3.50	4.00	6.00
AdB:						
Adams	3s	4.50	16.00	3.50	4.00	6.00
AdC:						
Adams	4e	4.50	16.00	3.50	4.00	6.00
AdD:						
Adams	6e	---	---	2.50	---	4.50
AdE:						
Adams	7e	---	---	2.50	---	4.50
AkA:						
Adirondack, very bouldery	6s	---	---	---	---	3.10
AkB:						
Adirondack, very bouldery	6s	---	---	---	---	3.10
AmB:						
Amenia	2e	5.00	23.00	5.00	4.50	8.50
AmC:						
Amenia	3e	5.00	23.00	5.00	4.50	8.50
BcB:						
Becket	2e	4.00	17.00	3.50	3.50	6.00
BcC:						
Becket	3e	4.00	17.00	3.50	3.50	6.00
BeB:						
Becket, very bouldery	6s	---	---	---	---	3.10
BeC:						
Becket, very bouldery	6s	---	---	---	---	3.10
BeD:						
Becket, very bouldery	7s	---	---	---	---	3.10
BeF:						
Becket, very bouldery	7s	---	---	---	---	3.10
BkC:						
Becket, rocky, very bouldery	6s	---	---	---	---	3.10

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
BkC:						
Tunbridge, rocky, very bouldery	6s	---	---	---	---	3.10
BkD:						
Becket, rocky, very bouldery	7s	---	---	---	---	3.10
Tunbridge, rocky, very bouldery	7s	---	---	---	---	3.10
BoB:						
Bombay	2e	5.00	23.00	5.00	4.50	8.50
BuA:						
Bucksport	5w	---	---	---	---	---
BvA:						
Burnt Vly	5w	---	---	---	---	---
CaA:						
Catden	5w	---	---	---	---	---
CbA:						
Colton, very bouldery	6s	---	---	---	---	4.00
CbB:						
Colton, very bouldery	6s	---	---	---	---	4.00
CbC:						
Colton, very bouldery	6s	---	---	---	---	4.00
CbD:						
Colton, very bouldery	6s	---	---	---	---	4.00
CgB:						
Cayuga	2e	5.00	23.00	5.00	4.50	8.50
CgC:						
Cayuga	3e	5.00	23.00	5.00	4.50	8.50
ChB:						
Champlain	3s	3.50	13.00	3.00	3.00	5.00
ChC:						
Champlain	3e	3.50	13.00	3.00	3.00	5.00
ChD:						
Champlain	4e	3.50	13.00	3.00	3.00	5.00
ChE:						
Champlain	6e	---	---	---	---	5.00
CkA:						
Charles	4w	---	13.00	3.00	2.50	4.80
ClB:						
Charlton	2e	5.50	22.00	4.50	4.50	7.50
ClC:						
Charlton	3e	5.50	22.00	4.50	4.50	7.50

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
ClD:						
Charlton	4e	5.50	22.00	4.50	4.50	7.50
CnC:						
Charlton, rocky, very stony	6s	---	---	---	---	6.00
Chatfield, rocky, very stony	6s	---	---	---	---	4.00
CnD:						
Charlton, rocky, very stony	7s	---	---	---	---	6.00
Chatfield, rocky, very stony	7s	---	---	---	---	4.00
CoB:						
Chatfield, very rocky, very stony	6s	---	---	---	---	4.00
Hollis, very rocky, very stony	6s	---	---	---	---	2.00
CoC:						
Chatfield, very rocky, very stony	6s	---	---	---	---	4.00
Hollis, very rocky, very stony	6s	---	---	---	---	2.00
CoD:						
Chatfield, very rocky, very stony	7s	---	---	---	---	4.00
Hollis, very rocky, very stony	7s	---	---	---	---	2.00
CoF:						
Chatfield, very rocky, very stony	7s	---	---	---	---	4.00
Hollis, very rocky, very stony	7s	---	---	---	---	2.00
CpB:						
Churchville	3w	---	18.00	4.00	3.00	6.50
CqA:						
Claverack	2w	5.00	20.00	4.50	4.50	7.50
CqB:						
Claverack	2w	5.00	20.00	4.50	4.50	7.50
CrB:						
Collamer	2e	5.50	24.00	5.00	5.00	8.00
CsA:						
Colton	3s	3.50	14.00	3.50	3.00	5.50
CsB:						
Colton	3s	3.50	14.00	3.50	3.00	5.50

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
CsC:						
Colton	4e	3.50	14.00	3.50	3.00	5.50
CsD:						
Colton	7e	---	---	2.50	---	4.00
CsE:						
Colton	7e	---	---	2.50	---	4.00
CtA:						
Cornish	3w	---	16.00	3.50	3.00	6.00
CuA:						
Cosad	3w	3.50	18.00	4.00	3.00	6.50
CuB:						
Cosad	3w	3.50	18.00	4.00	3.00	6.50
CvA:						
Covington	4w	---	13.00	3.00	---	5.00
CwA:						
Croghan	2w	4.50	17.00	3.50	3.50	6.00
CwB:						
Croghan	2w	4.50	17.00	3.50	3.50	6.00
DeA:						
Deerfield	3w	4.00	18.00	4.00	3.50	6.50
DeB:						
Deerfield	3w	4.00	18.00	4.00	3.50	6.50
DpC:						
Depeyster	3e	5.50	24.00	5.00	5.00	8.50
DpD:						
Depeyster	4e	5.50	24.00	5.00	5.00	8.50
DuC:						
Dunkirk	3e	5.00	24.00	5.00	4.50	8.50
DuD:						
Dunkirk	4e	5.00	24.00	5.00	4.50	8.50
DuE:						
Dunkirk	6e	---	---	5.00	---	8.50
DxB:						
Duxbury	2e	5.00	16.00	3.50	4.00	6.00
ElB:						
Elmridge	2e	4.50	23.00	5.00	4.00	8.50
FaD:						
Farmington, very rocky, very stony	7s	---	---	---	---	5.50
FcB:						
Factoryville	2s	4.50	15.00	3.50	4.00	5.00
Colonie, calcareous substratum	2s	4.50	18.00	4.00	4.00	6.00

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
FcC:						
Factoryville------------	3s	4.50	15.00	3.50	4.00	5.00
Colonie, calcareous substratum-------------	3s	4.50	18.00	4.00	4.00	6.00
FcD:						
Factoryville------------	6e	---	---	3.50	---	5.00
Colonie, calcareous substratum-------------	4s	4.50	18.00	4.00	4.00	6.00
FdF:						
Factoryville------------	7e	---	---	3.50	---	5.00
Dunkirk-----------------	7e	---	---	5.00	---	8.50
FgB:						
Farmington, very rocky, very stony-------------	6s	---	---	---	---	5.50
Galway, very rocky, very stony------------------	6s	---	---	---	---	7.00
FkF:						
Farmington, very stony--	7s	---	---	---	---	5.50
Rock outcrop, very stony	7s	---	---	---	---	---
FnB:						
Fernlake, very bouldery-	6s	---	---	---	---	3.50
FnC:						
Fernlake, very bouldery-	6s	---	---	---	---	3.50
FnD:						
Fernlake, very bouldery-	7s	---	---	---	---	3.50
FnF:						
Fernlake, very bouldery-	7s	---	---	---	---	3.50
FrB:						
Factoryville------------	2s	4.50	15.00	3.50	4.00	5.00
FuA:						
Fluvaquents, frequently flooded----------------	5w	---	---	---	---	---
Udifluvents, frequently flooded----------------	5w	---	---	---	---	---
GeB:						
Georgia-----------------	2e	5.00	23.00	5.00	4.50	8.50
GeC:						
Georgia-----------------	3e	5.00	23.00	5.00	4.50	8.50
GoA:						
Gougeville--------------	5w	---	---	---	---	---
HaB:						
Hailesboro--------------	3w	3.50	19.00	4.00	3.00	7.00

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
HcB:						
Howard------------------	3s	5.50	21.00	4.50	5.00	7.50
HcC:						
Howard------------------	4s	5.50	21.00	4.50	5.00	7.50
HcD:						
Howard------------------	7s	---	---	4.50	---	7.50
HdB:						
Hartland----------------	2e	6.00	26.00	6.00	5.50	9.50
HgB:						
Howard------------------	2s	5.50	21.00	4.50	5.00	7.50
HlB:						
Howard------------------	3s	5.50	21.00	4.50	5.00	7.50
HlC:						
Howard------------------	4s	5.50	21.00	4.50	5.00	7.50
HmB:						
Howard------------------	2s	5.50	21.00	4.50	5.00	7.50
HnC:						
Hermon, very bouldery---	6s	---	---	---	---	3.10
HnD:						
Hermon, very bouldery---	7s	---	---	---	---	3.10
HrF:						
Hogback, very rocky, very bouldery----------	7s	---	---	---	---	---
Knob Lock, very rocky, very bouldery----------	7s	---	---	---	---	---
HsD:						
Hollis, very stony------	7s	---	---	---	---	2.00
Rock outcrop, very stony	7s	---	---	---	---	---
HsF:						
Hollis, very stony------	7s	---	---	---	---	2.00
Rock outcrop, very stony	7s	---	---	---	---	---
KaB:						
Kalurah-----------------	2e	5.00	23.00	5.00	4.50	8.50
KaC:						
Kalurah-----------------	3e	5.00	23.00	5.00	4.50	8.50
KgB:						
Kalurah, very stony-----	6s	---	---	---	---	8.50
KgC:						
Kalurah, very stony-----	6s	---	---	---	---	8.50
KyA:						
Kingsbury---------------	3w	3.00	16.00	3.50	2.50	6.00

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
KyB:						
Kingsbury	3w	3.00	16.00	3.50	2.50	6.00
LnA:						
Livingston	4w	---	11.00	2.00	---	3.00
LvA:						
Lovewell	2w	4.50	22.00	5.00	4.50	8.50
LyD:						
Lyman, very rocky, very bouldery	7s	---	---	---	---	1.50
Knob Lock, very rocky, very bouldery	7s	---	---	---	---	---
LyF:						
Lyman, very rocky, very bouldery	7s	---	---	---	---	1.50
Knob Lock, very rocky, very bouldery	7s	---	---	---	---	---
MaB:						
Malone	3w	3.50	18.00	4.00	3.00	7.00
MbB:						
Malone, very stony	6s	---	---	---	---	7.00
McA:						
Massena	3w	---	18.00	4.00	3.00	6.50
McB:						
Massena	3w	---	18.00	4.00	3.00	6.50
MdA:						
Medomak	5w	---	10.00	2.00	---	3.00
MhB:						
Monadnock	2e	4.00	16.00	3.50	3.50	6.00
MhC:						
Monadnock	3e	4.00	16.00	3.50	3.50	6.00
MkB:						
Monadnock, very bouldery	6s	---	---	---	---	4.00
MkC:						
Monadnock, very bouldery	6s	---	---	---	---	4.00
MkD:						
Monadnock, very bouldery	7s	---	---	---	---	4.00
MkF:						
Monadnock, very bouldery	7s	---	---	---	---	4.00
MmF:						
Monadnock, bouldery	7s	---	---	---	---	4.00
Adams	7e	---	---	2.50	---	4.50

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
MnC:						
Monadnock, rocky, very bouldery	6s	---	---	---	---	4.00
Tunbridge, rocky, very bouldery	6s	---	---	---	---	3.10
MnD:						
Monadnock, rocky, very bouldery	7s	---	---	---	---	4.00
Tunbridge, rocky, very bouldery	7s	---	---	---	---	3.10
MnF:						
Monadnock, rocky, very bouldery	7s	---	---	---	---	4.00
Tunbridge, rocky, very bouldery	7s	---	---	---	---	3.10
MoA:						
Mooers	2w	3.50	17.00	4.00	3.00	6.00
MuC:						
Mundalite, very bouldery	6s	---	---	---	---	---
MuD:						
Mundalite, very bouldery	7s	---	---	---	---	---
MwC:						
Mundalite, rocky, very bouldery	6s	---	---	---	---	---
Rawsonville, rocky, very bouldery	6s	---	---	---	---	---
MwD:						
Mundalite, rocky, very bouldery	7s	---	---	---	---	---
Rawsonville, rocky, very bouldery	7s	---	---	---	---	---
NaA:						
Naumburg	3w	---	15.00	3.50	2.50	6.00
NeB:						
Nellis	2e	5.00	24.00	5.00	4.50	8.50
NeC:						
Nellis	3e	5.00	24.00	5.00	4.50	8.50
NeD:						
Nellis	4e	5.00	24.00	5.00	4.50	8.50
NgA:						
Niagara	3w	---	19.00	4.00	3.00	6.50
NgB:						
Niagara	3w	---	19.00	4.00	3.00	6.50

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
NvB:						
Nicholville	2e	4.00	18.00	4.00	3.50	7.00
OmA:						
Occum	1	5.50	24.00	5.50	5.00	8.00
OwA:						
Ondawa	1	6.00	23.00	5.00	5.50	8.00
Pc:						
Pits, quarry	8s	---	---	---	---	---
Pd:						
Pits, sand and gravel	8s	---	---	---	---	---
PfB:						
Pittsfield	2e	5.50	24.00	5.50	5.00	8.50
PfC:						
Pittsfield	3e	5.50	24.00	5.50	5.00	8.50
PfD:						
Pittsfield	4e	5.50	24.00	5.50	5.00	8.50
PfE:						
Pittsfield	7e	---	---	5.50	---	8.50
PkA:						
Pleasant Lake	5w	---	---	---	---	---
PlB:						
Pittsfield, rocky, very stony	6s	---	---	---	---	6.00
Chatfield, rocky, very stony	6s	---	---	---	---	4.00
PlC:						
Pittsfield, rocky, very stony	6s	---	---	---	---	6.00
Chatfield, rocky, very stony	6s	---	---	---	---	4.00
PlD:						
Pittsfield, rocky, very stony	7s	---	---	---	---	6.00
Chatfield, rocky, very stony	7s	---	---	---	---	4.00
PlF:						
Pittsfield, rocky, very stony	7s	---	---	---	---	6.00
Chatfield, rocky, very stony	7s	---	---	---	---	4.00
PoA:						
Podunk	2w	5.50	22.00	5.00	5.00	8.00
PrA:						
Pootatuck	2w	5.00	22.00	5.00	4.50	8.00

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
PtB:						
Pyrities	2e	5.50	24.00	5.50	5.00	8.50
PtC:						
Pyrities	3e	5.50	24.00	5.50	5.00	8.50
PtD:						
Pyrities	4e	5.50	24.00	5.50	5.00	8.50
PuC:						
Pyrities, very stony	6s	---	---	---	---	8.50
PuD:						
Pyrities, very stony	7s	---	---	---	---	8.50
PwC:						
Pyrities, very stony	6s	---	---	---	---	8.50
Nehasne, very stony	6s	---	---	---	---	7.50
PwD:						
Pyrities, very stony	7s	---	---	---	---	8.50
Nehasne, very stony	7s	---	---	---	---	7.50
PyC:						
Pyrities	3e	5.50	24.00	5.50	5.00	8.50
Nehasne	3e	5.00	22.00	5.00	4.50	7.50
PyD:						
Pyrities	4e	5.50	24.00	5.50	5.00	8.50
Nehasne	4e	5.00	22.00	5.00	4.50	7.50
RaC:						
Rawsonville, very rocky, very bouldery	6s	---	---	---	---	---
Hogback, very rocky, very bouldery	6s	---	---	---	---	---
RaD:						
Rawsonville, very rocky, very bouldery	7s	---	---	---	---	---
Hogback, very rocky, very bouldery	7s	---	---	---	---	---
RaF:						
Rawsonville, very rocky, very bouldery	7s	---	---	---	---	---
Hogback, very rocky, very bouldery	7s	---	---	---	---	---
RmA:						
Rippowam	4w	---	14.00	3.00	3.00	5.00
RpF:						
Rock outcrop, very bouldery	7s	---	---	---	---	---

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
RpF:						
Knob Lock, very rocky, very bouldery	7s	---	---	---	---	---
Lyman, very rocky, very bouldery	7s	---	---	---	---	1.50
RsA:						
Roundabout	3w	---	16.00	4.00	2.50	6.00
RuA:						
Rumney	4w	---	14.00	3.50	2.50	6.00
RyA:						
Rumney	4w	---	14.00	3.50	2.50	6.00
Burnt Vly	5w	---	---	---	---	---
SeA:						
Searsport	5w	---	13.00	3.00	---	5.00
SkB:						
Skerry	2e	---	16.00	4.00	3.00	6.00
SnB:						
Sunapee, very bouldery	6s	---	---	---	---	4.00
SpB:						
Sunapee	2w	4.00	17.00	4.00	3.50	6.00
SrB:						
Skerry, very bouldery	6s	---	---	---	---	4.00
SrC:						
Skerry, very bouldery	6s	---	---	---	---	4.00
StA:						
Stafford	3w	---	16.00	4.00	3.00	6.00
SuA:						
Sun	4w	---	13.00	2.00	---	3.50
TaA:						
Tahawus, very bouldery	6s	---	---	---	---	3.00
TeA:						
Typic Endoaquolls, very stony	6s	---	---	---	---	5.00
ToA:						
Tonawanda	3w	---	16.00	4.00	---	6.00
TuC:						
Tunbridge, very rocky, very bouldery	6s	---	---	---	---	3.10
Lyman, very rocky, very bouldery	6s	---	---	---	---	1.50
TuD:						
Tunbridge, very rocky, very bouldery	7s	---	---	---	---	3.10

Table 6.—Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn silage	Grass hay	Grass-legume hay	Pasture
		Tons	Tons	Tons	Tons	AUM
TuD:						
Lyman, very rocky, very bouldery	7s	---	---	---	---	1.50
TuF:						
Tunbridge, very rocky, very bouldery	7s	---	---	---	---	3.10
Lyman, very rocky, very bouldery	7s	---	---	---	---	1.50
UlC:						
Udorthents	8	---	---	---	---	---
UmF:						
Udorthents, mine spoil	8	---	---	---	---	---
VeB:						
Vergennes	2e	4.00	20.00	4.50	4.00	7.00
VeC:						
Vergennes	3e	4.00	20.00	4.50	4.00	7.00
VeD:						
Vergennes	4e	4.00	20.00	4.50	4.00	7.00
VeE:						
Vergennes	6e	---	---	4.50	---	7.00
W:						
Water	---	---	---	---	---	---
WeA:						
Wegatchie	4w	---	15.00	3.60	---	6.00
WlA:						
Whallonsburg	5w	---	---	---	---	---
WnA:						
Windsor	3s	4.00	15.00	3.50	3.50	6.00
WnB:						
Windsor	3s	4.00	15.00	3.50	3.50	6.00
WnC:						
Windsor	4s	4.00	15.00	3.50	3.50	6.00
WnD:						
Windsor	6s	---	---	3.50	---	6.00
WnE:						
Windsor	7s	---	---	3.50	---	6.00
WoA:						
Wonsqueak	5w	---	---	---	---	---

Table 7.—Forestland Productivity

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
10A:				
Pleasant Lake	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
Burnt Vly	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
13A:				
Burnt Vly	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
Rumney	black spruce	40	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	55	50	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern white pine	55	92	
	balsam fir	50	109	
	red maple	50	32	
Pleasant Lake	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
29C:				
Burnt Vly	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Rumney	black spruce	40	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	55	50	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern white pine	55	92	
	balsam fir	50	109	
	red maple	50	32	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
113A:				
Ondawa	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
	northern red oak	70	52	
	red pine	65	107	
Rumney	black spruce	40	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	55	50	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern white pine	55	92	
	balsam fir	50	109	
	red maple	50	32	
123A:				
Lovewell	sugar maple	65	40	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	65	40	
	yellow birch	65	40	
	red spruce	55	123	
	eastern white pine	70	127	
	white ash	75	47	
	eastern hemlock	---	---	
	black cherry	65	---	
	red maple	65	40	
	balsam fir	60	138	
Cornish	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	55	35	
	sugar maple	55	35	
	eastern hemlock	---	---	
	American beech	55	35	
	red maple	55	35	
	balsam fir	55	123	
350B:				
Duxbury, very stony	eastern white pine	67	120	eastern white pine, northern red oak, red pine
	red pine	63	101	
	eastern white cedar	---	---	
	pitch pine	57	---	
	northern red oak	63	46	
	paper birch	57	51	
	sugar maple	57	36	
	red maple	57	36	
	balsam fir	53	118	
	red spruce	47	102	
363A:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
363B:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
363D:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
363F:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
365A:				
Naumburg	eastern white pine	55	92	eastern white pine, sugar maple, balsam fir
	balsam fir	50	109	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern hemlock	---	---	
	red maple	50	32	
	yellow birch	50	32	
	sugar maple	50	32	
Croghan	eastern white pine	65	114	eastern white pine, sugar maple, balsam fir
	balsam fir	50	109	
	eastern white cedar	---	---	
	red spruce	45	98	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
367A:				
Searsport	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
	red maple	45	29	
Haplosaprists	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
367A:				
Naumburg	eastern white pine	55	92	eastern white pine, sugar maple, balsam fir
	balsam fir	50	109	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern hemlock	---	---	
	red maple	50	32	
	yellow birch	50	32	
	sugar maple	50	32	
375A:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
375C:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
375D:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
375F:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
649C:				
Monadnock, rocky, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Tahawus, very bouldery	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
650C:				
Monadnock, bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
650C:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
650D:				
Monadnock, bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
651D:				
Monadnock, rocky, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
651D:				
Tunbridge, rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
653C:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
653D:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
655B:				
Sunapee, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
657C:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tahawus, very bouldery	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
657D:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tahawus, very bouldery	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
661C:				
Hermon, very bouldery	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	65	114	
	white ash	63	39	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	red pine	63	101	
661D:				
Hermon, very bouldery	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	65	114	
	white ash	63	39	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	red pine	63	101	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
661F:				
Hermon, very bouldery	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	65	114	
	white ash	63	39	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	red pine	63	101	
705B:				
Adirondack, very bouldery	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	
Tahawus, very bouldery	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
721C:				
Becket, rocky, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Skerry, rocky, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
721D:				
Becket, rocky, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
721F:				
Becket, rocky, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
723C:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
723D:				
Becket, very bouldery---	sugar maple---------	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech------	60	38	
	yellow birch--------	60	38	
	red spruce----------	50	109	
	eastern white pine--	65	114	
	white ash-----------	70	43	
	eastern hemlock-----	---	---	
	black cherry--------	60	---	
	red maple-----------	60	38	
723F:				
Becket, very bouldery---	sugar maple---------	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech------	60	38	
	yellow birch--------	60	38	
	red spruce----------	50	109	
	eastern white pine--	65	114	
	white ash-----------	70	43	
	eastern hemlock-----	---	---	
	black cherry--------	60	---	
	red maple-----------	60	38	
725B:				
Skerry, very bouldery---	red spruce----------	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch--------	60	38	
	sugar maple---------	60	38	
	eastern hemlock-----	---	---	
	American beech------	60	38	
	red maple-----------	60	38	
	balsam fir----------	55	123	
	eastern white pine--	65	114	
Becket, very bouldery---	sugar maple---------	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech------	60	38	
	yellow birch--------	60	38	
	red spruce----------	50	109	
	eastern white pine--	65	114	
	white ash-----------	70	43	
	eastern hemlock-----	---	---	
	black cherry--------	60	---	
	red maple-----------	60	38	
727B:				
Skerry, very bouldery---	red spruce----------	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch--------	60	38	
	sugar maple---------	60	38	
	eastern hemlock-----	---	---	
	American beech------	60	38	
	red maple-----------	60	38	
	balsam fir----------	55	123	
	eastern white pine--	65	114	
Adirondack, very bouldery---------------	red spruce----------	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch--------	50	32	
	sugar maple---------	50	32	
	eastern hemlock-----	---	---	
	American beech------	50	32	
	red maple-----------	50	32	
	balsam fir----------	50	109	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber	
			cu ft/ac	
831C:				
Tunbridge, very rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
831D:				
Tunbridge, very rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
831F:				
Tunbridge, very rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
831F:				
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
833C:				
Tunbridge, very rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Adirondack, very rocky, very bouldery	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
851D:				
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
851D:				
Knob Lock, very rocky, very bouldery	red spruce	25	34	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	35	22	
	yellow birch	35	22	
	American beech	35	22	
	eastern white pine	40	62	
	white ash	45	29	
	northern red oak	45	30	
	red pine	40	44	
851F:				
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
Knob Lock, very rocky, very bouldery	red spruce	25	34	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	35	22	
	yellow birch	35	22	
	American beech	35	22	
	eastern white pine	40	62	
	white ash	45	29	
	northern red oak	45	30	
	red pine	40	44	
881F:				
Rock outcrop, very bouldery	---	---	---	---
Knob Lock, very rocky, very bouldery	red spruce	25	34	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	35	22	
	yellow birch	35	22	
	American beech	35	22	
	eastern white pine	40	62	
	white ash	45	29	
	northern red oak	45	30	
	red pine	40	44	
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
930C:				
Mundalite, rocky, very bouldery	red spruce	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	50	32	
	paper birch	50	43	
	balsam fir	45	98	
	sugar maple	50	32	
	American beech	50	32	
	hemlock	---	---	
	red maple	50	32	
	eastern white pine	55	92	
Rawsonville, rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
Ampersand, rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	40	27	
	paper birch	40	35	
	balsam fir	40	87	
	sugar maple	40	27	
	American beech	40	27	
	hemlock	---	---	
	red maple	40	---	
	eastern white pine	45	72	
931D:				
Mundalite, rocky, very bouldery	red spruce	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	50	32	
	paper birch	50	43	
	balsam fir	45	98	
	sugar maple	50	32	
	American beech	50	32	
	hemlock	---	---	
	red maple	50	32	
	eastern white pine	55	92	
Rawsonville, rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
931F:				
Mundalite, rocky, very bouldery	red spruce	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	50	32	
	paper birch	50	43	
	balsam fir	45	98	
	sugar maple	50	32	
	American beech	50	32	
	hemlock	---	---	
	red maple	50	32	
	eastern white pine	55	92	
Rawsonville, rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
932C:				
Mundalite, very bouldery	red spruce	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	50	32	
	paper birch	50	43	
	balsam fir	45	98	
	sugar maple	50	32	
	American beech	50	32	
	hemlock	---	---	
	red maple	50	32	
	eastern white pine	55	92	
Ampersand, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	40	27	
	paper birch	40	35	
	balsam fir	40	87	
	sugar maple	40	27	
	American beech	40	27	
	hemlock	---	---	
	red maple	40	---	
	eastern white pine	45	72	
932D:				
Mundalite, very bouldery	red spruce	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	50	32	
	paper birch	50	43	
	balsam fir	45	98	
	sugar maple	50	32	
	American beech	50	32	
	hemlock	---	---	
	red maple	50	32	
	eastern white pine	55	92	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
932D:				
Ampersand, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	40	27	
	paper birch	40	35	
	balsam fir	40	87	
	sugar maple	40	27	
	American beech	40	27	
	hemlock	---	---	
	red maple	40	---	
	eastern white pine	45	72	
934C:				
Ampersand, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	40	27	
	paper birch	40	35	
	balsam fir	40	87	
	sugar maple	40	27	
	American beech	40	27	
	hemlock	---	---	
	red maple	40	---	
	eastern white pine	45	72	
Wilmington, very bouldery	black spruce	30	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	45	35	
	eastern white cedar	---	---	
	red spruce	35	70	
	eastern white pine	45	72	
	balsam fir	40	87	
941C:				
Rawsonville, very rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
Hogback, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
941D:				
Rawsonville, very rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
Hogback, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	
941F:				
Rawsonville, very rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
Hogback, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	
944D:				
Hogback, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
944D:				
Knob Lock, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	balsam fir	30	52	
	yellow birch	35	22	
	paper birch	35	30	
944F:				
Hogback, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	
Knob Lock, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	balsam fir	30	52	
	yellow birch	35	22	
	paper birch	35	30	
948F:				
Rock outcrop, very bouldery	---	---	---	---
Knob Lock, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	balsam fir	30	52	
	yellow birch	35	22	
	paper birch	35	30	
Hogback, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	
971D:				
Esther, rocky, very bouldery	balsam fir	40	87	balsam fir
	paper birch	45	39	
	red spruce	35	70	
Wallface, rocky, very bouldery	balsam fir	35	70	balsam fir
	paper birch	40	35	
	red spruce	30	52	
975C:				
Andic Cryaquods, very bouldery	balsam fir	35	70	balsam fir
	paper birch	35	30	
	red spruce	30	52	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
975C:				
Esther, very bouldery	balsam fir	40	87	balsam fir
	paper birch	45	39	
	red spruce	35	70	
975D:				
Esther, very bouldery	balsam fir	40	87	balsam fir
	paper birch	45	39	
	red spruce	35	70	
Andic Cryaquods, very bouldery	balsam fir	35	70	balsam fir
	paper birch	35	30	
	red spruce	30	52	
992D:				
Wallface, very rocky, very bouldery	balsam fir	35	70	balsam fir
	paper birch	40	35	
	red spruce	30	52	
Skylight, very rocky, very bouldery	balsam fir	25	---	balsam fir
	paper birch	30	---	
	red spruce	20	---	
993F:				
Santanoni, very rocky, very bouldery	balsam fir	35	70	balsam fir
	paper birch	40	35	
	red spruce	30	52	
Skylight, very rocky, very bouldery	balsam fir	25	---	balsam fir
	paper birch	30	---	
	red spruce	20	---	
995D:				
Ricker, very rocky, very bouldery	balsam fir	20	---	balsam fir
	paper birch	25	---	
	red spruce	15	---	
Couchsachraga, very rocky, very bouldery	balsam fir	20	---	balsam fir
	paper birch	25	---	
	red spruce	15	---	
Skylight, very rocky, very bouldery	balsam fir	25	---	balsam fir
	paper birch	30	---	
	red spruce	20	---	
995F:				
Ricker, very rocky, very bouldery	balsam fir	20	---	balsam fir
	paper birch	25	---	
	red spruce	15	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
995F:				
Couchsachraga, very rocky, very bouldery	balsam fir	20	---	balsam fir
	paper birch	25	---	
	red spruce	15	---	
Skylight, very rocky, very bouldery	balsam fir	25	---	balsam fir
	paper birch	30	---	
	red spruce	20	---	
998F:				
Rock outcrop, very bouldery	---	---	---	---
Ricker, very bouldery	balsam fir	20	---	balsam fir
	paper birch	25	---	
	red spruce	15	---	
Skylight, very bouldery	balsam fir	25	---	balsam fir
	paper birch	30	---	
	red spruce	20	---	
AdA:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
AdB:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
AdC:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
AdD:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
AdE:				
Adams-------------------	eastern white pine--	65	114	eastern white pine, northern red oak, red pine
	red pine-----------	60	92	
	eastern white cedar-	---	---	
	pitch pine----------	55	---	
	northern red oak----	60	43	
	paper birch---------	55	48	
	sugar maple---------	55	35	
AkA:				
Adirondack, very bouldery---------------	red spruce----------	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch--------	50	32	
	sugar maple---------	50	32	
	eastern hemlock-----	---	---	
	American beech------	50	32	
	red maple-----------	50	32	
	balsam fir----------	50	109	
AkB:				
Adirondack, very bouldery---------------	red spruce----------	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch--------	50	32	
	sugar maple---------	50	32	
	eastern hemlock-----	---	---	
	American beech------	50	32	
	red maple-----------	50	32	
	balsam fir----------	50	109	
AmB:				
Amenia------------------	eastern white pine--	75	143	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak----	80	57	
	white ash-----------	80	50	
	sugar maple---------	70	43	
	American basswood---	80	57	
	shagbark hickory----	---	---	
	American beech------	70	43	
	red maple-----------	70	43	
	white oak-----------	---	---	
	American elm--------	---	---	
	American hornbeam---	---	---	
AmC:				
Amenia------------------	eastern white pine--	75	143	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak----	80	57	
	white ash-----------	80	50	
	sugar maple---------	70	43	
	American basswood---	80	57	
	shagbark hickory----	---	---	
	American beech------	70	43	
	red maple-----------	70	43	
	white oak-----------	---	---	
	American elm--------	---	---	
	American hornbeam---	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
BcB:				
Becket	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
BcC:				
Becket	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
BeB:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
BeC:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
BeD:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
BeF:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
BkC:				
Becket, rocky, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
BkD:				
Becket, rocky, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
BoB:				
Bombay	eastern white pine	75	143	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	80	57	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	80	57	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	American hornbeam	---	---	
BuA:				
Bucksport	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
BvA:				
Burnt Vly	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
CaA:				
Catden	silver maple	---	---	white ash, eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	white ash	60	38	
	swamp white oak	---	---	
	red maple	50	32	
	eastern white cedar	35	51	
CbA:				
Colton, very bouldery	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
CbB:				
Colton, very bouldery	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
CbC:				
Colton, very bouldery	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
CbD:				
Colton, very bouldery	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
CgB:				
Cayuga	eastern white pine	65	114	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
CgC:				
Cayuga	eastern white pine	65	114	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
ChB:				
Champlain	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
ChC:				
Champlain	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
ChD:				
Champlain	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
ChE:				
Champlain	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
CkA:				
Charles	red spruce	50	109	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	yellow birch	55	35	
	sugar maple	55	35	
	eastern hemlock	---	---	
	American beech	55	35	
	red maple	55	35	
	balsam fir	55	123	
ClB:				
Charlton	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
ClC:				
Charlton	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
ClD:				
Charlton	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
CnC:				
Charlton, rocky, very stony	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
Chatfield, rocky, very stony	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	
CnD:				
Charlton, rocky, very stony	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
Chatfield, rocky, very stony	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	
CoB:				
Chatfield, very rocky, very stony	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
CoB:				
Hollis, very rocky, very stony	American beech	50	32	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	50	32	
	yellow birch	50	32	
	white ash	60	38	
	red maple	50	32	
	eastern white pine	55	92	
	northern red oak	60	43	
	red spruce	40	87	
	red pine	55	77	
CoC:				
Chatfield, very rocky, very stony	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	
Hollis, very rocky, very stony	American beech	50	32	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	50	32	
	yellow birch	50	32	
	white ash	60	38	
	red maple	50	32	
	eastern white pine	55	92	
	northern red oak	60	43	
	red spruce	40	87	
	red pine	55	77	
CoD:				
Chatfield, very rocky, very stony	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	
Hollis, very rocky, very stony	American beech	50	32	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	50	32	
	yellow birch	50	32	
	white ash	60	38	
	red maple	50	32	
	eastern white pine	55	92	
	northern red oak	60	43	
	red spruce	40	87	
	red pine	55	77	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
CoF:				
Chatfield, very rocky, very stony	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	
Hollis, very rocky, very stony	American beech	50	32	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	50	32	
	yellow birch	50	32	
	white ash	60	38	
	red maple	50	32	
	eastern white pine	55	92	
	northern red oak	60	43	
	red spruce	40	87	
	red pine	55	77	
CpB:				
Churchville	eastern white pine	55	92	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	60	43	
	white ash	60	38	
	sugar maple	50	32	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	50	32	
	red maple	50	32	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
CqA:				
Claverack	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
CqB:				
Claverack	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
CrB:				
Collamer	eastern white pine	70	127	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	75	57	
	white ash	75	47	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
	black cherry	65	---	
CsA:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
CsB:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
CsC:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
CsD:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
CsE:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
CtA:				
Cornish	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	55	35	
	sugar maple	55	35	
	eastern hemlock	---	---	
	American beech	55	35	
	red maple	55	35	
	balsam fir	55	123	
CuA:				
Cosad	eastern white pine	70	127	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	65	47	
	white ash	65	40	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	65	47	
	American elm	---	---	
	American hornbeam	---	---	
CuB:				
Cosad	eastern white pine	70	127	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	65	47	
	white ash	65	40	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	65	47	
	American elm	---	---	
	American hornbeam	---	---	
CvA:				
Covington	silver maple	---	---	white ash, eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	white ash	60	38	
	swamp white oak	---	---	
	red maple	50	32	
	eastern white cedar	35	51	
CwA:				
Croghan	eastern white pine	65	114	eastern white pine, sugar maple, balsam fir
	balsam fir	50	109	
	eastern white cedar	---	---	
	red spruce	45	98	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
CwB:				
Croghan	eastern white pine	65	114	eastern white pine, sugar maple, balsam fir
	balsam fir	50	109	
	eastern white cedar	---	---	
	red spruce	45	98	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7. - Forestland Productivity

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
DeA:				
Deerfield	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
DeB:				
Deerfield	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
DpC:				
Depeyster	red spruce	55	123	red spruce, balsam fir, yellow birch, red maple, eastern white pine
	yellow birch	65	40	
	sugar maple	65	40	
	eastern hemlock	---	---	
	American beech	65	40	
	red maple	65	40	
	balsam fir	60	138	
	eastern white pine	70	127	
	white ash	75	47	
	black cherry	65	---	
	northern red oak	75	57	
DpD:				
Depeyster	red spruce	55	123	red spruce, balsam fir, yellow birch, red maple, eastern white pine
	yellow birch	65	40	
	sugar maple	65	40	
	eastern hemlock	---	---	
	American beech	65	40	
	red maple	65	40	
	balsam fir	60	138	
	eastern white pine	70	127	
	white ash	75	47	
	black cherry	65	---	
	northern red oak	75	57	
DuC:				
Dunkirk	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
DuD:				
Dunkirk	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
DuE:				
Dunkirk	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
DxB:				
Duxbury	eastern white pine	67	120	eastern white pine, northern red oak, red pine
	red pine	63	101	
	eastern white cedar	---	---	
	pitch pine	57	---	
	northern red oak	63	46	
	paper birch	57	51	
	sugar maple	57	36	
	red maple	57	36	
	balsam fir	53	118	
	red spruce	47	102	
ElB:				
Elmridge	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
FaD:				
Farmington, very rocky, very stony	eastern white pine	60	102	eastern white pine, northern red oak, sugar maple
	northern red oak	65	47	
	eastern white cedar	---	---	
	sugar maple	55	35	
	American basswood	---	---	
	shagbark hickory	---	---	
	bur oak	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
FaD:				
Farmington, very rocky, very stony	white oak	---	---	
	American hornbeam	---	---	
	white ash	65	40	
FcB:				
Factoryville	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
Colonie, calcareous substratum	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
	red pine	70	122	
FcC:				
Factoryville	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
Colonie, calcareous substratum	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
	red pine	70	122	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
FcD:				
Factoryville	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
Colonie, calcareous substratum	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
	red pine	70	122	
FdF:				
Factoryville	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
Dunkirk	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
FgB:				
Farmington, very rocky, very stony	eastern white pine	60	102	eastern white pine, northern red oak, sugar maple
	northern red oak	65	47	
	eastern white cedar	---	---	
	sugar maple	55	35	
	American basswood	---	---	
	shagbark hickory	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees (Potential productivity)	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
FgB:				
Farmington, very rocky, very stony	bur oak	---	---	
	white oak	---	---	
	American hornbeam	---	---	
	white ash	65	40	
Galway, very rocky, very stony	eastern white pine	70	127	eastern white pine, northern red oak, sugar maple
	northern red oak	75	57	
	eastern white cedar	---	---	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	bur oak	---	---	
	white oak	---	---	
	American hornbeam	---	---	
	white ash	75	47	
FkF:				
Farmington, very stony	eastern white pine	60	102	eastern white pine, northern red oak, sugar maple
	northern red oak	65	47	
	eastern white cedar	---	---	
	sugar maple	55	35	
	American basswood	---	---	
	shagbark hickory	---	---	
	bur oak	---	---	
	white oak	---	---	
	American hornbeam	---	---	
	white ash	65	40	
Rock outcrop, very stony	---	---	---	---
FnB:				
Fernlake, very bouldery	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	65	114	
	white ash	63	39	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	northern red oak	63	46	
FnC:				
Fernlake, very bouldery	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	65	114	
	white ash	63	39	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	northern red oak	63	46	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
FnD:				
Fernlake, very bouldery	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	65	114	
	white ash	63	39	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	northern red oak	63	46	
FnF:				
Fernlake, very bouldery	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	65	114	
	white ash	63	39	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	northern red oak	63	46	
FrB:				
Factoryville	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
FuA:				
Fluvaquents, frequently flooded	---	---	---	---
Udifluvents, frequently flooded	---	---	---	---
GeB:				
Georgia	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	
	red spruce	57	129	
	red pine	73	147	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
GeC:				
Georgia	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	
	red spruce	57	129	
	red pine	73	147	
GoA:				
Gougeville	silver maple	---	---	white ash, eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	white ash	60	---	
	swamp white oak	---	---	
	red maple	50	32	
	eastern white cedar	35	51	
HaB:				
Hailesboro	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	55	35	
	sugar maple	55	35	
	eastern hemlock	---	---	
	American beech	55	35	
	red maple	55	35	
	balsam fir	50	109	
	white ash	65	40	
	northern red oak	65	47	
HcB:				
Howard	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
HcC:				
Howard	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
HcD:				
Howard	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
HdB:				
Hartland	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
HgB:				
Howard	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
HlB:				
Howard	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
HlC:				
Howard	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
HlC:				
Howard	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
HmB:				
Howard	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	70	52	
	American elm	---	---	
	American hornbeam	---	---	
HnC:				
Hermon, very bouldery	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	65	114	
	white ash	63	39	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	red pine	63	101	
HnD:				
Hermon, very bouldery	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	65	114	
	white ash	63	39	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	red pine	63	101	
HrF:				
Hogback, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	
Knob Lock, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	balsam fir	30	52	
	yellow birch	35	22	
	paper birch	35	30	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
HsD:				
Hollis, very stony	American beech	50	32	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	50	32	
	yellow birch	50	32	
	white ash	60	38	
	red maple	50	32	
	eastern white pine	55	92	
	northern red oak	60	43	
	red spruce	40	87	
	red pine	55	77	
Rock outcrop, very stony	---	---	---	---
HsF:				
Hollis, very stony	American beech	50	32	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	50	32	
	yellow birch	50	32	
	white ash	60	38	
	red maple	50	32	
	eastern white pine	55	92	
	northern red oak	60	43	
	red spruce	40	87	
	red pine	55	77	
Rock outcrop, very stony	---	---	---	---
KaB:				
Kalurah	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	44	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
	northern red oak	73	55	
KaC:				
Kalurah	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	44	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
	northern red oak	73	55	
KgB:				
Kalurah, very stony	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	44	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
	northern red oak	73	55	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
KgC:				
Kalurah, very stony	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	44	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
	northern red oak	73	55	
KyA:				
Kingsbury	eastern white pine	55	92	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	60	43	
	white ash	60	38	
	sugar maple	50	32	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	50	32	
	red maple	50	32	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
KyB:				
Kingsbury	eastern white pine	55	92	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	60	43	
	white ash	60	38	
	sugar maple	50	32	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	50	32	
	red maple	50	32	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
LnA:				
Livingston	silver maple	---	---	white ash, eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	white ash	60	38	
	swamp white oak	---	---	
	red maple	50	32	
	eastern white cedar	35	51	
LvA:				
Lovewell	sugar maple	65	40	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	65	40	
	yellow birch	65	40	
	red spruce	55	123	
	eastern white pine	70	127	
	white ash	75	47	
	eastern hemlock	---	---	
	black cherry	65	---	
	red maple	65	40	
	balsam fir	60	138	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
LyD:				
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
Knob Lock, very rocky, very bouldery	red spruce	25	34	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	35	22	
	yellow birch	35	22	
	American beech	35	22	
	eastern white pine	40	62	
	white ash	45	29	
	northern red oak	45	30	
	red pine	40	44	
LyF:				
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
Knob Lock, very rocky, very bouldery	red spruce	25	34	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	35	22	
	yellow birch	35	22	
	American beech	35	22	
	eastern white pine	40	62	
	white ash	45	29	
	northern red oak	45	30	
	red pine	40	44	
MaB:				
Malone	red spruce	47	102	red spruce, balsam fir, yellow birch, red maple
	yellow birch	53	34	
	sugar maple	53	34	
	eastern hemlock	---	---	
	American beech	53	34	
	red maple	53	34	
	balsam fir	53	118	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
MbB:				
Malone, very stony	red spruce	47	102	red spruce, balsam fir, yellow birch, red maple
	yellow birch	53	34	
	sugar maple	53	34	
	eastern hemlock	---	---	
	American beech	53	34	
	red maple	53	34	
	balsam fir	53	118	
McA:				
Massena	eastern white pine	65	114	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	---	---	
	American elm	---	---	
	American hornbeam	---	---	
McB:				
Massena	eastern white pine	65	114	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	---	---	
	American elm	---	---	
	American hornbeam	---	---	
MdA:				
Medomak	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
	red maple	45	29	
MhB:				
Monadnock	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
MhC:				
Monadnock	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
MkB:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
MkC:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
MkD:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
MkF:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
MmF:				
Monadnock, bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
MnC:				
Monadnock, rocky, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
MnD:				
Monadnock, rocky, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
MnD:				
Tunbridge, rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
MnF:				
Monadnock, rocky, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
MoA:				
Mooers	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
MuC:				
Mundalite, very bouldery	red spruce	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	50	32	
	paper birch	50	43	
	balsam fir	45	98	
	sugar maple	50	32	
	American beech	50	32	
	hemlock	---	---	
	red maple	50	32	
	eastern white pine	55	92	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
MuD:				
Mundalite, very bouldery	red spruce	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	50	32	
	paper birch	50	43	
	balsam fir	45	98	
	sugar maple	50	32	
	American beech	50	32	
	hemlock	---	---	
	red maple	50	32	
	eastern white pine	55	92	
MwC:				
Mundalite, rocky, very bouldery	red spruce	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	50	32	
	paper birch	50	43	
	balsam fir	45	98	
	sugar maple	50	32	
	American beech	50	32	
	hemlock	---	---	
	red maple	50	32	
	eastern white pine	55	92	
Rawsonville, rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
MwD:				
Mundalite, rocky, very bouldery	red spruce	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	50	32	
	paper birch	50	43	
	balsam fir	45	98	
	sugar maple	50	32	
	American beech	50	32	
	hemlock	---	---	
	red maple	50	32	
	eastern white pine	55	92	
Rawsonville, rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
NaA:				
Naumburg	eastern white pine	55	92	eastern white pine, sugar maple, balsam fir
	balsam fir	50	109	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern hemlock	---	---	
	red maple	50	32	
	yellow birch	50	32	
	sugar maple	50	32	
NeB:				
Nellis	eastern white pine	75	143	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	80	57	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	80	57	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	American hornbeam	---	---	
NeC:				
Nellis	eastern white pine	75	143	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	80	57	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	80	57	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	American hornbeam	---	---	
NeD:				
Nellis	eastern white pine	75	143	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	80	57	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	80	57	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	American hornbeam	---	---	
NgA:				
Niagara	eastern white pine	65	114	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
	black cherry	60	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
NgB:				
Niagara	eastern white pine	65	114	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
	black cherry	60	---	
NvB:				
Nicholville	red spruce	55	123	red spruce, balsam fir, yellow birch, red maple, eastern white pine
	yellow birch	65	40	
	sugar maple	65	40	
	eastern hemlock	---	---	
	American beech	65	40	
	red maple	65	40	
	balsam fir	60	138	
	eastern white pine	70	127	
	white ash	75	47	
	black cherry	65	---	
	northern red oak	75	57	
OmA:				
Occum	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
OwA:				
Ondawa	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
	northern red oak	70	52	
	red pine	65	107	
Pc:				
Pits, quarry	---	---	---	---
Pd:				
Pits, sand and gravel	---	---	---	---

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
PfB:				
Pittsfield	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	
	red spruce	57	129	
	red pine	73	147	
PfC:				
Pittsfield	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	
	red spruce	57	129	
	red pine	73	147	
PfD:				
Pittsfield	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	
	red spruce	57	129	
	red pine	73	147	
PfE:				
Pittsfield	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	
	red spruce	57	129	
	red pine	73	147	
PkA:				
Pleasant Lake	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
PlB:				
Pittsfield, rocky, very stony	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
PlB:				
Pittsfield, rocky, very stony	red spruce	57	129	
	red pine	73	147	
Chatfield, rocky, very stony	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	
PlC:				
Pittsfield, rocky, very stony	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	
	red spruce	57	129	
	red pine	73	147	
Chatfield, rocky, very stony	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	
PlD:				
Pittsfield, rocky, very stony	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	
	red spruce	57	129	
	red pine	73	147	
Chatfield, rocky, very stony	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
PlF:				
Pittsfield, rocky, very stony	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	
	red spruce	57	129	
	red pine	73	147	
Chatfield, rocky, very stony	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	
PoA:				
Podunk	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
	northern red oak	70	52	
	red pine	65	107	
PrA:				
Pootatuck	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
PtB:				
Pyrities	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	45	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
PtC:				
Pyrities	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	45	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
PtD:				
Pyrities	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	45	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
PuC:				
Pyrities, very stony	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	45	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
PuD:				
Pyrities, very stony	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	45	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
PwC:				
Pyrities, very stony	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	45	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
Nehasne, very stony	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	63	110	
	white ash	67	43	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
PwC:				
Nehasne, very stony	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	northern red oak	67	49	
PwD:				
Pyrities, very stony	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	45	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
Nehasne, very stony	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	63	110	
	white ash	67	43	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	northern red oak	67	49	
PyC:				
Pyrities	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	45	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	
Nehasne	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	63	110	
	white ash	67	43	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	northern red oak	67	49	
PyD:				
Pyrities	sugar maple	63	39	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	63	39	
	yellow birch	63	39	
	red spruce	53	118	
	eastern white pine	67	120	
	white ash	73	45	
	eastern hemlock	---	---	
	black cherry	63	---	
	red maple	63	39	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
PyD:				
Nehasne	sugar maple	57	36	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	57	36	
	yellow birch	57	36	
	red spruce	47	102	
	eastern white pine	63	110	
	white ash	67	43	
	eastern hemlock	---	---	
	black cherry	57	---	
	red maple	57	36	
	northern red oak	67	49	
RaC:				
Rawsonville, very rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
Hogback, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	
RaD:				
Rawsonville, very rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
Hogback, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
RaF:				
Rawsonville, very rocky, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
Hogback, very rocky, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	
RmA:				
Rippowam	silver maple	---	---	white ash, eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	white ash	65	47	
	swamp white oak	---	---	
	red maple	55	38	
	eastern white cedar	35	51	
RpF:				
Rock outcrop, very bouldery	---	---	---	---
Knob Lock, very rocky, very bouldery	red spruce	25	34	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	35	22	
	yellow birch	35	22	
	American beech	35	22	
	eastern white pine	40	62	
	white ash	45	29	
	northern red oak	45	30	
	red pine	40	44	
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
RsA:				
Roundabout	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	55	35	
	sugar maple	55	35	
	eastern hemlock	---	---	
	American beech	55	35	
	red maple	55	35	
	balsam fir	50	109	
	white ash	65	40	
	northern red oak	65	47	
	eastern white pine	60	102	
RuA:				
Rumney	black spruce	40	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	55	50	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern white pine	55	92	
	balsam fir	50	109	
	red maple	50	32	
RyA:				
Rumney	black spruce	40	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	55	50	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern white pine	55	92	
	balsam fir	50	109	
	red maple	50	32	
Burnt Vly	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
SeA:				
Searsport	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
	red maple	45	29	
SkB:				
Skerry	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
SnB:				
Sunapee, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
SpB:				
Sunapee	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
SrB:				
Skerry, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
SrC:				
Skerry, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
StA:				
Stafford	eastern white pine	65	114	eastern white pine, eastern white cedar, northern red oak
	eastern white cedar	---	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	60	38	
	red maple	60	38	
	white ash	60	38	
	eastern hemlock	---	---	
SuA:				
Sun	silver maple	---	---	white ash, eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	white ash	60	38	
	swamp white oak	---	---	
	red maple	50	32	
	eastern white cedar	35	51	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
TaA:				
Tahawus, very bouldery--	black spruce--------	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack------------	50	42	
	eastern white cedar-	30	42	
	red spruce----------	40	87	
	eastern white pine--	50	81	
	balsam fir----------	45	98	
TeA:				
Typic Endoaquolls, very stony------------------	black spruce--------	43	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack------------	57	54	
	eastern white cedar-	37	55	
	red spruce----------	47	102	
	eastern white pine--	57	96	
	balsam fir----------	53	118	
	red maple-----------	53	34	
ToA:				
Tonawanda---------------	eastern white pine--	65	114	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak----	70	52	
	white ash-----------	70	43	
	sugar maple---------	60	38	
	American basswood---	---	---	
	shagbark hickory----	---	---	
	American beech------	60	38	
	red maple-----------	60	38	
	white oak-----------	---	---	
	American elm--------	---	---	
	eastern hemlock-----	---	---	
	black cherry--------	60	---	
TuC:				
Tunbridge, very rocky, very bouldery----------	red spruce----------	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock-----	---	---	
	sugar maple---------	55	35	
	yellow birch--------	55	35	
	American beech------	55	35	
	eastern white pine--	60	102	
	white ash-----------	65	40	
	northern red oak----	65	47	
	red pine------------	60	92	
Lyman, very rocky, very bouldery---------------	red spruce----------	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock-----	---	---	
	sugar maple---------	45	32	
	yellow birch--------	45	32	
	American beech------	45	32	
	eastern white pine--	50	81	
	white ash-----------	55	35	
	northern red oak----	55	38	
	red pine------------	50	65	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
TuD:				
Tunbridge, very rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
TuF:				
Tunbridge, very rocky, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Lyman, very rocky, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
UlC:				
Udorthents	---	---	---	---
UmF:				
Udorthents, mine spoil	---	---	---	---
VeB:				
Vergennes	eastern white pine	65	114	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
VeB:				
Vergennes	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
VeC:				
Vergennes	eastern white pine	65	114	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
VeD:				
Vergennes	eastern white pine	65	114	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
VeE:				
Vergennes	eastern white pine	65	114	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
W:				
Water	---	---	---	---
WeA:				
Wegatchie	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
	red maple	50	32	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
WlA:				
Whallonsburg	silver maple	---	---	white ash, eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	white ash	60	38	
	swamp white oak	---	---	
	red maple	50	32	
	eastern white cedar	35	51	
WnA:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
WnB:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
WnC:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
WnD:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
WnE:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
WoA:				
Wonsqueak	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.]

* Depths and duration (months) of seasonal saturation can be found in the Water Table section of the 'Water Features' table.

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
10A:					
Pleasant Lake	45	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Burnt Vly	30	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
13A:					
Burnt Vly	40	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Rumney	30	Slight		Severe	
				Depth to saturated zone *	1.00
Pleasant Lake	20	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
29C:					
Burnt Vly	40	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Colton	30	Slight		Slight	
Rumney	20	Slight		Severe	
				Depth to saturated zone *	1.00
113A:					
Ondawa	45	Slight		Slight	
Rumney	30	Slight		Severe	
				Depth to saturated zone *	1.00
123A:					
Lovewell	45	Slight		Moderate	
				Depth to saturated zone *	0.50

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
123A:					
Cornish	30	Slight		Severe	
				Depth to saturated zone *	1.00
350B:					
Duxbury, very stony	85	Slight		Slight	
363A:					
Adams	75	Slight		Slight	
363B:					
Adams	75	Slight		Slight	
363D:					
Adams	75	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
363F:					
Adams	75	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
365A:					
Naumburg	45	Slight		Severe	
				Depth to saturated zone *	1.00
Croghan	30	Slight		Moderate	
				Depth to saturated zone *	0.50
367A:					
Searsport	40	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
Haplosaprists	30	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Naumburg	20	Slight		Severe	
				Depth to saturated zone *	1.00
375A:					
Colton	45	Slight		Slight	
Adams	30	Slight		Slight	
375C:					
Colton	45	Slight		Slight	
Adams	30	Slight		Slight	
375D:					
Colton	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value
375D:					
Adams	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
375F:					
Colton	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Adams	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
649C:					
Monadnock, rocky, very bouldery	40	Slight		Slight	
Tunbridge, rocky, very bouldery	30	Slight		Slight	
Tahawus, very bouldery	20	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
650C:					
Monadnock, bouldery	40	Slight		Slight	
Adams	30	Slight		Slight	
Colton	20	Slight		Slight	
650D:					
Monadnock, bouldery	40	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Adams	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Colton	20	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
651D:					
Monadnock, rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tunbridge, rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
653C:					
Monadnock, very bouldery	85	Slight		Slight	
653D:					
Monadnock, very bouldery	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
655B:					
Sunapee, very bouldery	45	Slight		Moderate	
				Depth to saturated zone *	0.50
Monadnock, very bouldery	30	Slight		Slight	
657C:					
Monadnock, very bouldery	60	Slight		Slight	
Tahawus, very bouldery	30	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
657D:					
Monadnock, very bouldery	60	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tahawus, very bouldery	30	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
661C:					
Hermon, very bouldery	85	Slight		Slight	
661D:					
Hermon, very bouldery	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
661F:					
Hermon, very bouldery	85	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
705B:					
Adirondack, very bouldery	40	Slight		Severe	
				Depth to saturated zone *	1.00
Tahawus, very bouldery	35	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
721C:					
Becket, rocky, very bouldery	40	Slight		Slight	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
721C:					
Tunbridge, rocky, very bouldery------	30	Slight		Slight	
Skerry, rocky, very bouldery-----------	20	Slight		Moderate	
				Depth to saturated zone *	0.50
721D:					
Becket, rocky, very bouldery-----------	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tunbridge, rocky, very bouldery------	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
721F:					
Becket, rocky, very bouldery-----------	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Tunbridge, rocky, very bouldery------	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
723C:					
Becket, very bouldery-----------	85	Slight		Slight	
723D:					
Becket, very bouldery-----------	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
723F:					
Becket, very bouldery-----------	85	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
725B:					
Skerry, very bouldery-----------	45	Slight		Moderate	
				Depth to saturated zone *	0.50
Becket, very bouldery-----------	30	Slight		Slight	
727B:					
Skerry, very bouldery-----------	45	Slight		Moderate	
				Depth to saturated zone *	0.50
Adirondack, very bouldery-----------	30	Slight		Severe	
				Depth to saturated zone *	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
831C:					
Tunbridge, very rocky, very bouldery	45	Slight		Slight	
Lyman, very rocky, very bouldery	30	Slight		Slight	
831D:					
Tunbridge, very rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Lyman, very rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
831F:					
Tunbridge, very rocky, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Lyman, very rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
833C:					
Tunbridge, very rocky, very bouldery	40	Slight		Slight	
Adirondack, very rocky, very bouldery	30	Slight		Severe	
				Depth to saturated zone *	1.00
Lyman, very rocky, very bouldery	20	Slight		Slight	
851D:					
Lyman, very rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Knob Lock, very rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
851F:					
Lyman, very rocky, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Knob Lock, very rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
881F:					
Rock outcrop, very bouldery	40	Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Lyman, very rocky, very bouldery	20	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
930C:					
Mundalite, rocky, very bouldery	40	Slight		Slight	
Rawsonville, rocky, very bouldery	30	Slight		Slight	
Ampersand, rocky, very bouldery	20	Slight		Severe	
				Depth to saturated zone *	1.00
931D:					
Mundalite, rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Rawsonville, rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
931F:					
Mundalite, rocky, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Rawsonville, rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
932C:					
Mundalite, very bouldery	45	Slight		Slight	
Ampersand, very bouldery	30	Slight		Severe	
				Depth to saturated zone *	1.00
932D:					
Mundalite, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
932D:					
Ampersand, very bouldery	30	Moderate		Severe	
		Slope/erodibility	0.50	Depth to saturated zone *	1.00
				Slope	0.40
934C:					
Ampersand, very bouldery	45	Slight		Severe	
				Depth to saturated zone *	1.00
Wilmington, very bouldery	30	Slight		Severe	
				Depth to saturated zone *	1.00
941C:					
Rawsonville, very rocky, very bouldery	45	Slight		Slight	
Hogback, very rocky, very bouldery	30	Slight		Slight	
941D:					
Rawsonville, very rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Hogback, very rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
941F:					
Rawsonville, very rocky, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Hogback, very rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
944D:					
Hogback, very rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Knob Lock, very rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
944F:					
Hogback, very rocky, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
944F:					
Knob Lock, very rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
948F:					
Rock outcrop, very bouldery	40	Not rated		Not rated	
Knob Lock, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Hogback, very bouldery	20	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
971D:					
Esther, rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Low strength	0.50
				Slope	0.40
Wallface, rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Low strength	0.50
				Slope	0.40
975C:					
Andic Cryaquods, very bouldery	45	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
Esther, very bouldery	35	Slight		Moderate	
				Low strength	0.50
975D:					
Esther, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Low strength	0.50
				Slope	0.40
Andic Cryaquods, very bouldery	35	Moderate		Severe	
		Slope/erodibility	0.50	Depth to saturated zone *	1.00
				Low strength	0.50
				Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
992D:					
Wallface, very rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Low strength	0.50
				Slope	0.40
Skylight, very rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
993F:					
Santanoni, very rocky, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Skylight, very rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
995D:					
Ricker, very rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Low strength	0.50
				Slope	0.40
Couchsachraga, very rocky, very bouldery	25	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Skylight, very rocky, very bouldery	20	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
995F:					
Ricker, very rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
				Low strength	0.50
Couchsachraga, very rocky, very bouldery	25	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Skylight, very rocky, very bouldery	20	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
998F:					
Rock outcrop, very bouldery	30	Not rated		Not rated	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
998F:					
Ricker, very bouldery	25	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
				Low strength	0.50
Skylight, very bouldery	20	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
AdA:					
Adams	85	Slight		Slight	
AdB:					
Adams	85	Slight		Slight	
AdC:					
Adams	85	Slight		Slight	
AdD:					
Adams	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
AdE:					
Adams	85	Moderate		Severe	
		Slope/erodibility	0.50	Slope	1.00
AkA:					
Adirondack, very bouldery	85	Slight		Severe	
				Depth to saturated zone *	1.00
AkB:					
Adirondack, very bouldery	85	Slight		Severe	
				Depth to saturated zone *	1.00
AmB:					
Amenia	85	Slight		Moderate	
				Depth to saturated zone *	0.50
AmC:					
Amenia	85	Slight		Moderate	
				Depth to saturated zone *	0.50
BcB:					
Becket	85	Slight		Slight	
BcC:					
Becket	85	Slight		Slight	
BeB:					
Becket, very bouldery	85	Slight		Slight	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
BeC:					
Becket, very bouldery	85	Slight		Slight	
BeD:					
Becket, very bouldery	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
BeF:					
Becket, very bouldery	85	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
BkC:					
Becket, rocky, very bouldery	45	Slight		Slight	
Tunbridge, rocky, very bouldery	30	Slight		Slight	
BkD:					
Becket, rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tunbridge, rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
BoB:					
Bombay	85	Slight		Moderate	
				Depth to saturated zone *	0.50
BuA:					
Bucksport	85	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
BvA:					
Burnt Vly	85	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
CaA:					
Catden	85	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
CbA:					
Colton, very bouldery	85	Slight		Slight	
CbB:					
Colton, very bouldery	85	Slight		Slight	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
CbC:					
Colton, very bouldery	85	Slight		Slight	
CbD:					
Colton, very bouldery	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
CgB:					
Cayuga	85	Slight		Moderate	
				Depth to saturated zone *	0.50
CgC:					
Cayuga	85	Moderate		Moderate	
		Slope/erodibility	0.50	Depth to saturated zone *	0.50
ChB:					
Champlain	85	Slight		Slight	
ChC:					
Champlain	85	Slight		Slight	
ChD:					
Champlain	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
ChE:					
Champlain	85	Moderate		Severe	
		Slope/erodibility	0.50	Slope	1.00
CkA:					
Charles	85	Slight		Severe	
				Depth to saturated zone *	1.00
ClB:					
Charlton	85	Slight		Slight	
ClC:					
Charlton	85	Slight		Slight	
ClD:					
Charlton	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
CnC:					
Charlton, rocky, very stony	45	Slight		Slight	
Chatfield, rocky, very stony	30	Slight		Slight	
CnD:					
Charlton, rocky, very stony	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
CnD:					
Chatfield, rocky, very stony	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
CoB:					
Chatfield, very rocky, very stony	45	Slight		Slight	
Hollis, very rocky, very stony	30	Slight		Slight	
CoC:					
Chatfield, very rocky, very stony	45	Slight		Slight	
Hollis, very rocky, very stony	30	Slight		Slight	
CoD:					
Chatfield, very rocky, very stony	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Hollis, very rocky, very stony	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
CoF:					
Chatfield, very rocky, very stony	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Hollis, very rocky, very stony	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
CpB:					
Churchville	85	Slight		Severe	
				Depth to saturated zone *	1.00
CqA:					
Claverack	85	Slight		Moderate	
				Depth to saturated zone *	0.50
CqB:					
Claverack	85	Slight		Moderate	
				Depth to saturated zone *	0.50
CrB:					
Collamer	85	Slight		Moderate	
				Depth to saturated zone *	0.50
CsA:					
Colton	85	Slight		Slight	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
CsB:					
Colton	85	Slight		Slight	
CsC:					
Colton	85	Slight		Slight	
CsD:					
Colton	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
CsE:					
Colton	85	Moderate		Severe	
		Slope/erodibility	0.50	Slope	1.00
CtA:					
Cornish	85	Slight		Severe	
				Depth to saturated zone *	1.00
CuA:					
Cosad	85	Slight		Severe	
				Depth to saturated zone *	1.00
CuB:					
Cosad	85	Slight		Severe	
				Depth to saturated zone *	1.00
CvA:					
Covington	85	Slight		Severe	
				Depth to saturated zone *	1.00
CwA:					
Croghan	85	Slight		Moderate	
				Depth to saturated zone *	0.50
CwB:					
Croghan	85	Slight		Moderate	
				Depth to saturated zone *	0.50
DeA:					
Deerfield	85	Slight		Moderate	
				Depth to saturated zone *	0.50
DeB:					
Deerfield	85	Slight		Moderate	
				Depth to saturated zone *	0.50
DpC:					
Depeyster	85	Moderate		Moderate	
		Slope/erodibility	0.50	Depth to saturated zone *	0.50

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
DpD:					
Depeyster	85	Moderate		Moderate	
		Slope/erodibility	0.50	Depth to saturated zone *	0.50
				Slope	0.40
DuC:					
Dunkirk	85	Moderate		Slight	
		Slope/erodibility	0.50		
DuD:					
Dunkirk	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
DuE:					
Dunkirk	85	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
DxB:					
Duxbury	85	Slight		Slight	
ElB:					
Elmridge	85	Slight		Moderate	
				Depth to saturated zone *	0.50
FaD:					
Farmington, very rocky, very stony	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
FcB:					
Factoryville	45	Slight		Slight	
Colonie, calcareous substratum	30	Slight		Slight	
FcC:					
Factoryville	45	Slight		Slight	
Colonie, calcareous substratum	30	Slight		Slight	
FcD:					
Factoryville	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Colonie, calcareous substratum	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
FdF:					
Factoryville	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Dunkirk	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
FgB:					
Farmington, very rocky, very stony	45	Slight		Slight	
Galway, very rocky, very stony	30	Slight		Slight	
FkF:					
Farmington, very stony	60	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Rock outcrop, very stony	30	Not rated		Not rated	
FnB:					
Fernlake, very bouldery	85	Slight		Slight	
FnC:					
Fernlake, very bouldery	85	Slight		Slight	
FnD:					
Fernlake, very bouldery	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
FnF:					
Fernlake, very bouldery	85	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
FrB:					
Factoryville	85	Slight		Slight	
FuA:					
Fluvaquents, frequently flooded	45	Slight		Severe	
				Depth to saturated zone *	1.00
Udifluvents, frequently flooded	30	Slight		Slight	
GeB:					
Georgia	85	Slight		Moderate	
				Depth to saturated zone *	0.50
GeC:					
Georgia	85	Slight		Moderate	
				Depth to saturated zone *	0.50
GoA:					
Gougeville	85	Slight		Severe	
				Depth to saturated zone *	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value
HaB:					
Hailesboro----------	85	Slight		Severe	
				Depth to saturated zone *	1.00
HcB:					
Howard--------------	85	Slight		Slight	
HcC:					
Howard--------------	85	Slight		Slight	
HcD:					
Howard--------------	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
HdB:					
Hartland------------	85	Slight		Slight	
HgB:					
Howard--------------	85	Slight		Slight	
HlB:					
Howard--------------	85	Slight		Slight	
HlC:					
Howard--------------	85	Slight		Slight	
HmB:					
Howard--------------	85	Slight		Slight	
HnC:					
Hermon, very bouldery-----------	85	Slight		Slight	
HnD:					
Hermon, very bouldery-----------	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
HrF:					
Hogback, very rocky, very bouldery------	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Knob Lock, very rocky, very bouldery-----------	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
HsD:					
Hollis, very stony--	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Rock outcrop, very stony--------------	30	Not rated		Not rated	
HsF:					
Hollis, very stony--	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
HsF:					
Rock outcrop, very stony	30	Not rated		Not rated	
KaB:					
Kalurah	85	Slight		Moderate	
				Depth to saturated zone *	0.50
KaC:					
Kalurah	85	Slight		Moderate	
				Depth to saturated zone *	0.50
KgB:					
Kalurah, very stony	85	Slight		Moderate	
				Depth to saturated zone *	0.50
KgC:					
Kalurah, very stony	85	Slight		Moderate	
				Depth to saturated zone *	0.50
KyA:					
Kingsbury	85	Slight		Severe	
				Depth to saturated zone *	1.00
KyB:					
Kingsbury	85	Slight		Severe	
				Depth to saturated zone *	1.00
LnA:					
Livingston	85	Slight		Severe	
				Depth to saturated zone *	1.00
LvA:					
Lovewell	85	Slight		Moderate	
				Depth to saturated zone *	0.50
LyD:					
Lyman, very rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Knob Lock, very rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
LyF:					
Lyman, very rocky, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
LyF:					
Knob Lock, very rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
MaB:					
Malone	85	Slight		Severe	
				Depth to saturated zone *	1.00
MbB:					
Malone, very stony	85	Slight		Severe	
				Depth to saturated zone *	1.00
McA:					
Massena	85	Slight		Severe	
				Depth to saturated zone *	1.00
McB:					
Massena	85	Slight		Severe	
				Depth to saturated zone *	1.00
MdA:					
Medomak	85	Slight		Severe	
				Depth to saturated zone *	1.00
MhB:					
Monadnock	85	Slight		Slight	
MhC:					
Monadnock	85	Slight		Slight	
MkB:					
Monadnock, very bouldery	85	Slight		Slight	
MkC:					
Monadnock, very bouldery	85	Slight		Slight	
MkD:					
Monadnock, very bouldery	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
MkF:					
Monadnock, very bouldery	85	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
MmF:					
Monadnock, bouldery	55	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Adams	25	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
MnC:					
Monadnock, rocky, very bouldery	45	Slight		Slight	
Tunbridge, rocky, very bouldery	30	Slight		Slight	
MnD:					
Monadnock, rocky, very bouldery	45	Moderate Slope/erodibility	 0.50	Moderate Slope	 0.40
Tunbridge, rocky, very bouldery	30	Moderate Slope/erodibility	 0.50	Moderate Slope	 0.40
MnF:					
Monadnock, rocky, very bouldery	45	Severe Slope/erodibility	 1.00	Severe Slope	 1.00
Tunbridge, rocky, very bouldery	30	Severe Slope/erodibility	 1.00	Severe Slope	 1.00
MoA:					
Mooers	85	Slight		Moderate Depth to saturated zone *	 0.50
MuC:					
Mundalite, very bouldery	85	Slight		Slight	
MuD:					
Mundalite, very bouldery	85	Moderate Slope/erodibility	 0.50	Moderate Slope	 0.40
MwC:					
Mundalite, rocky, very bouldery	45	Slight		Slight	
Rawsonville, rocky, very bouldery	30	Slight		Slight	
MwD:					
Mundalite, rocky, very bouldery	45	Moderate Slope/erodibility	 0.50	Moderate Slope	 0.40
Rawsonville, rocky, very bouldery	30	Moderate Slope/erodibility	 0.50	Moderate Slope	 0.40
NaA:					
Naumburg	85	Slight		Severe Depth to saturated zone *	 1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
NeB:					
Nellis	85	Slight		Slight	
NeC:					
Nellis	85	Slight		Slight	
NeD:					
Nellis	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
NgA:					
Niagara	85	Slight		Severe	
				Depth to saturated zone *	1.00
NgB:					
Niagara	85	Slight		Severe	
				Depth to saturated zone *	1.00
NvB:					
Nicholville	85	Slight		Moderate	
				Depth to saturated zone *	0.50
OmA:					
Occum	85	Slight		Slight	
OwA:					
Ondawa	85	Slight		Slight	
Pc:					
Pits, quarry	85	Not rated		Not rated	
Pd:					
Pits, sand and gravel	85	Not rated		Not rated	
PfB:					
Pittsfield	85	Slight		Slight	
PfC:					
Pittsfield	85	Slight		Slight	
PfD:					
Pittsfield	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
PfE:					
Pittsfield	85	Moderate		Severe	
		Slope/erodibility	0.50	Slope	1.00
PkA:					
Pleasant Lake	85	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
PlB:					
Pittsfield, rocky, very stony	45	Slight		Slight	
Chatfield, rocky, very stony	30	Slight		Slight	
PlC:					
Pittsfield, rocky, very stony	45	Slight		Slight	
Chatfield, rocky, very stony	30	Slight		Slight	
PlD:					
Pittsfield, rocky, very stony	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Chatfield, rocky, very stony	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
PlF:					
Pittsfield, rocky, very stony	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Chatfield, rocky, very stony	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
PoA:					
Podunk	85	Slight		Moderate	
				Depth to saturated zone *	0.50
PrA:					
Pootatuck	85	Slight		Moderate	
				Depth to saturated zone *	0.50
PtB:					
Pyrities	85	Slight		Slight	
PtC:					
Pyrities	85	Slight		Slight	
PtD:					
Pyrities	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
PuC:					
Pyrities, very stony	85	Slight		Slight	
PuD:					
Pyrities, very stony	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
PwC:					
Pyrities, very stony	45	Slight		Slight	
Nehasne, very stony-	30	Slight		Slight	
PwD:					
Pyrities, very stony	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Nehasne, very stony-	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
PyC:					
Pyrities------------	45	Slight		Slight	
Nehasne-------------	30	Slight		Slight	
PyD:					
Pyrities------------	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Nehasne-------------	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
RaC:					
Rawsonville, very rocky, very bouldery-----------	45	Slight		Slight	
Hogback, very rocky, very bouldery------	30	Slight		Slight	
RaD:					
Rawsonville, very rocky, very bouldery-----------	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Hogback, very rocky, very bouldery------	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
RaF:					
Rawsonville, very rocky, very bouldery-----------	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Hogback, very rocky, very bouldery------	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
RmA:					
Rippowam------------	85	Slight		Severe	
				Depth to saturated zone *	1.00
RpF:					
Rock outcrop, very bouldery-----------	40	Not rated		Not rated	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
RpF:					
Knob Lock, very rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Lyman, very rocky, very bouldery	20	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
RsA:					
Roundabout	85	Slight		Severe	
				Depth to saturated zone *	1.00
RuA:					
Rumney	85	Slight		Severe	
				Depth to saturated zone *	1.00
RyA:					
Rumney	45	Slight		Severe	
				Depth to saturated zone *	1.00
Burnt Vly	30	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
SeA:					
Searsport	85	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
SkB:					
Skerry	85	Slight		Moderate	
				Depth to saturated zone *	0.50
SnB:					
Sunapee, very bouldery	85	Slight		Moderate	
				Depth to saturated zone *	0.50
SpB:					
Sunapee	85	Slight		Moderate	
				Depth to saturated zone *	0.50
SrB:					
Skerry, very bouldery	85	Slight		Moderate	
				Depth to saturated zone *	0.50

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
SrC:					
Skerry, very bouldery	85	Slight		Moderate	
				Depth to saturated zone *	0.50
StA:					
Stafford	85	Slight		Severe	
				Depth to saturated zone *	1.00
SuA:					
Sun	85	Slight		Severe	
				Depth to saturated zone *	1.00
TaA:					
Tahawus, very bouldery	85	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
TeA:					
Typic Endoaquolls, very stony	85	Slight		Severe	
				Depth to saturated zone *	1.00
ToA:					
Tonawanda	85	Slight		Severe	
				Depth to saturated zone *	1.00
TuC:					
Tunbridge, very rocky, very bouldery	45	Slight		Slight	
Lyman, very rocky, very bouldery	30	Slight		Slight	
TuD:					
Tunbridge, very rocky, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Lyman, very rocky, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
TuF:					
Tunbridge, very rocky, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Lyman, very rocky, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
UlC:					
Udorthents	100	Not rated		Not rated	
		Not rated (too variable)		Not rated (too variable)	
UmF:					
Udorthents, mine spoil	100	Not rated		Not rated	
		Not rated (too variable)		Not rated (too variable)	
VeB:					
Vergennes	85	Slight		Moderate	
				Depth to saturated zone *	0.50
VeC:					
Vergennes	85	Moderate		Moderate	
		Slope/erodibility	0.50	Depth to saturated zone *	0.50
VeD:					
Vergennes	85	Moderate		Moderate	
		Slope/erodibility	0.50	Depth to saturated zone *	0.50
				Slope	0.40
VeE:					
Vergennes	85	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
				Depth to saturated zone *	0.50
W:					
Water	100	Not rated		Not rated	
WeA:					
Wegatchie	85	Slight		Severe	
				Depth to saturated zone *	1.00
WlA:					
Whallonsburg	85	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
WnA:					
Windsor	85	Slight		Slight	
WnB:					
Windsor	85	Slight		Slight	
WnC:					
Windsor	85	Slight		Slight	
WnD:					
Windsor	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value
WnE:					
Windsor-------------	85	Moderate		Severe	
		Slope/erodibility	0.50	Slope	1.00
WoA:					
Wonsqueak-----------	85	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00

* Depths and duration (months) of seasonal saturation can be found in the Water Table section of the 'Water Features' table.

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.]

* Depths and duration (months) of seasonal saturation can be found in the Water Table section of the 'Water Features' table.

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
10A:							
Pleasant Lake	45	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
Burnt Vly	30	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
13A:							
Burnt Vly	40	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
Rumney	30	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00		
Pleasant Lake	20	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
29C:							
Burnt Vly	40	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
Colton	30	Slight		Moderately suited		Well suited	
				Slope	0.50		
Rumney	20	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
113A:							
Ondawa	45	Somewhat limited		Moderately suited		Well suited	
		Flooding	0.50	Flooding	0.50		
Rumney	30	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00		
123A:							
Lovewell	45	Somewhat limited		Moderately suited		Moderately suited	
		Flooding	0.50	Flooding	0.50	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50		
Cornish	30	Somewhat limited		Moderately suited		Moderately suited	
		Flooding	0.50	Flooding	0.50	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50		
350B:							
Duxbury, very stony	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
363A:							
Adams	75	Somewhat limited		Well suited		Well suited	
		Sandiness	0.50				
363B:							
Adams	75	Somewhat limited		Moderately suited		Well suited	
		Sandiness	0.50	Slope	0.50		
363D:							
Adams	75	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
363F:							
Adams	75	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Sandiness	0.50				
365A:							
Naumburg	45	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Croghan	30	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Too sandy	0.50	Depth to saturated zone *	0.50
		Sandiness	0.50	Depth to saturated zone *	0.50	Too sandy	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
367A:							
Searsport	40	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	0.50	Depth to saturated zone *	1.00	Too sandy	0.50
				Too sandy	0.50	Low strength	0.50
				Low strength	0.50		
Haplosaprists	30	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
Naumburg	20	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
375A:							
Colton	45	Slight		Well suited		Well suited	
Adams	30	Somewhat limited		Well suited		Well suited	
		Sandiness	0.50				
375C:							
Colton	45	Slight		Moderately suited		Well suited	
				Slope	0.50		
Adams	30	Somewhat limited		Moderately suited		Well suited	
		Sandiness	0.50	Slope	0.50		
375D:							
Colton	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
Adams	30	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
375F:							
Colton	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
Adams	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Sandiness	0.50				
649C:							
Monadnock, rocky, very bouldery	40	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
Tunbridge, rocky, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
649C:							
Tahawus, very bouldery	20	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Rock fragments	0.50	Depth to saturated zone *	1.00	Rock fragments	0.50
		Low strength	0.50	Rock fragments	0.50	Low strength	0.50
				Low strength	0.50		
650C:							
Monadnock, bouldery	40	Slight		Moderately suited		Well suited	
				Slope	0.50		
Adams	30	Somewhat limited		Moderately suited		Well suited	
		Sandiness	0.50	Slope	0.50		
Colton	20	Slight		Moderately suited		Well suited	
				Slope	0.50		
650D:							
Monadnock, bouldery	40	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
Adams	30	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
Colton	20	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
651D:							
Monadnock, rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
Tunbridge, rocky, very bouldery	30	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
653C:							
Monadnock, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
653D:							
Monadnock, very bouldery	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
655B:							
Sunapee, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
				Slope	0.50		
Monadnock, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
657C:							
Monadnock, very bouldery	60	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
Tahawus, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Rock fragments	0.50	Depth to saturated zone *	1.00	Rock fragments	0.50
		Low strength	0.50	Rock fragments	0.50	Low strength	0.50
				Low strength	0.50		
657D:							
Monadnock, very bouldery	60	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
Tahawus, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Rock fragments	0.50	Depth to saturated zone *	1.00	Rock fragments	0.50
		Low strength	0.50	Rock fragments	0.50	Low strength	0.50
				Low strength	0.50		
661C:							
Hermon, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
661D:							
Hermon, very bouldery	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Sandiness	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
661F:							
Hermon, very bouldery	85	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Sandiness	0.50				
705B:							
Adirondack, very bouldery	40	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Tahawus, very bouldery	35	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Rock fragments	0.50	Depth to saturated zone *	1.00	Rock fragments	0.50
		Low strength	0.50	Rock fragments	0.50	Low strength	0.50
				Low strength	0.50		
721C:							
Becket, rocky, very bouldery	40	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
Tunbridge, rocky, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Skerry, rocky, very bouldery	20	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
				Slope	0.50		
721D:							
Becket, rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Tunbridge, rocky, very bouldery	30	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
721F:							
Becket, rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Tunbridge, rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
723C:							
Becket, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
723D:							
Becket, very bouldery	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
723F:							
Becket, very bouldery	85	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
725B:							
Skerry, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
				Slope	0.50		
Becket, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
727B:							
Skerry, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Adirondack, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
831C:							
Tunbridge, very rocky, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Lyman, very rocky, very bouldery	30	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
831D:							
Tunbridge, very rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Lyman, very rocky, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
831F:							
Tunbridge, very rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Lyman, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
833C:							
Tunbridge, very rocky, very bouldery	40	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
833C:							
Adirondack, very rocky, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
				Slope	0.50		
Lyman, very rocky, very bouldery	20	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
851D:							
Lyman, very rocky, very bouldery	45	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Knob Lock, very rocky, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
851F:							
Lyman, very rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Knob Lock, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
881F:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
881F:							
Lyman, very rocky, very bouldery	20	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
930C:							
Mundalite, rocky, very bouldery	40	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
Rawsonville, rocky, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Ampersand, rocky, very bouldery	20	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
				Slope	0.50		
931D:							
Mundalite, rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Rawsonville, rocky, very bouldery	30	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
931F:							
Mundalite, rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Rawsonville, rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
932C:							
Mundalite, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
Ampersand, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
				Slope	0.50		
932D:							
Mundalite, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Ampersand, very bouldery	30	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Slope	0.50
934C:							
Ampersand, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Wilmington, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
941C:							
Rawsonville, very rocky, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Hogback, very rocky, very bouldery	30	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
941D:							
Rawsonville, very rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Hogback, very rocky, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
941F:							
Rawsonville, very rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Hogback, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
944D:							
Hogback, very rocky, very bouldery	45	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Knob Lock, very rocky, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
944F:							
Hogback, very rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Knob Lock, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
948F:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
948F:							
Knob Lock, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Hogback, very bouldery	20	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
971D:							
Esther, rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Low strength	0.50
		Low strength	0.50	Low strength	0.50	Slope	0.50
Wallface, rocky, very bouldery	30	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Low strength	0.50
		Rock fragments	0.50	Low strength	0.50	Slope	0.50
		Low strength	0.50				
975C:							
Andic Cryaquods, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Low strength	0.50	Low strength	0.50	Low strength	0.50
				Slope	0.50		
Esther, very bouldery	35	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Low strength	0.50	Low strength	0.50	Low strength	0.50
				Slope	0.50		
975D:							
Esther, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Low strength	0.50
		Low strength	0.50	Low strength	0.50	Slope	0.50
Andic Cryaquods, very bouldery	35	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Low strength	0.50
		Low strength	0.50	Low strength	0.50	Slope	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
992D:							
Wallface, very rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Low strength	0.50
		Rock fragments	0.50	Low strength	0.50	Slope	0.50
		Low strength	0.50				
Skylight, very rocky, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
993F:							
Santanoni, very rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to bedrock	0.50	Too sandy	0.50	Too sandy	0.50
		Sandiness	0.50				
Skylight, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
995D:							
Ricker, very rocky, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Low strength	0.50
		Rock fragments	0.50	Low strength	0.50	Slope	0.50
		Low strength	0.50				
Couchsachraga, very rocky, very bouldery	25	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Too sandy	0.50
		Rock fragments	0.50	Too sandy	0.50	Slope	0.50
		Sandiness	0.50				
Skylight, very rocky, very bouldery	20	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
995F:							
Ricker, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Low strength	0.50	Low strength	0.50
		Low strength	0.50				
Couchsachraga, very rocky, very bouldery	25	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Too sandy	0.50	Too sandy	0.50
		Sandiness	0.50				
Skylight, very rocky, very bouldery	20	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
998F:							
Rock outcrop, very bouldery	30	Not rated		Not rated		Not rated	
Ricker, very bouldery	25	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Low strength	0.50	Low strength	0.50
		Low strength	0.50				
Skylight, very bouldery	20	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
AdA:							
Adams	85	Somewhat limited		Well suited		Well suited	
		Sandiness	0.50				
AdB:							
Adams	85	Somewhat limited		Well suited		Well suited	
		Sandiness	0.50				
AdC:							
Adams	85	Somewhat limited		Moderately suited		Well suited	
		Sandiness	0.50	Slope	0.50		
AdD:							
Adams	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
AdE:							
Adams	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
AkA:							
Adirondack, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
AkB:							
Adirondack, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
AmB:							
Amenia	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
AmC:							
Amenia	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
				Depth to saturated zone *	0.50		
BcB:							
Becket	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
BcC:							
Becket	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
BeB:							
Becket, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
BeC:							
Becket, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
BeD:							
Becket, very bouldery	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
BeF:							
Becket, very bouldery	85	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
BkC:							
Becket, rocky, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
Tunbridge, rocky, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
BkD:							
Becket, rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Tunbridge, rocky, very bouldery	30	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
BoB:							
Bombay	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
BuA:							
Bucksport	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BvA:							
Burnt Vly	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
CaA:							
Catden	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
CbA:							
Colton, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
CbB:							
Colton, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
CbC:							
Colton, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
CbD:							
Colton, very bouldery	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
CgB:							
Cayuga	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
CgC:							
Cayuga	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Depth to saturated zone *	0.50	Surface stickiness	0.50
				Surface stickiness	0.50		
ChB:							
Champlain	85	Somewhat limited		Well suited		Well suited	
		Sandiness	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
ChC:							
Champlain-----------	85	Somewhat limited		Moderately suited		Well suited	
		Sandiness	0.50	Slope	0.50		
ChD:							
Champlain-----------	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
ChE:							
Champlain-----------	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
CkA:							
Charles-------------	85	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00		
ClB:							
Charlton------------	85	Slight		Well suited		Well suited	
ClC:							
Charlton------------	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
ClD:							
Charlton------------	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
CnC:							
Charlton, rocky, very stony---------	45	Slight		Moderately suited		Well suited	
				Slope	0.50		
Chatfield, rocky, very stony---------	30	Somewhat limited		Moderately suited		Well suited	
		Depth to bedrock	0.50	Slope	0.50		
CnD:							
Charlton, rocky, very stony---------	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
Chatfield, rocky, very stony---------	30	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Slope	0.50
		Slope	0.50				
CoB:							
Chatfield, very rocky, very stony--	45	Somewhat limited		Well suited		Well suited	
		Depth to bedrock	0.50				
Hollis, very rocky, very stony---------	30	Very limited		Well suited		Well suited	
		Depth to bedrock	1.00				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CoC:							
Chatfield, very rocky, very stony--	45	Somewhat limited		Moderately suited		Well suited	
		Depth to bedrock	0.50	Slope	0.50		
Hollis, very rocky, very stony---------	30	Very limited		Moderately suited		Well suited	
		Depth to bedrock	1.00	Slope	0.50		
CoD:							
Chatfield, very rocky, very stony--	45	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Slope	0.50
		Slope	0.50				
Hollis, very rocky, very stony---------	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	0.50
		Slope	0.50				
CoF:							
Chatfield, very rocky, very stony--	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50				
Hollis, very rocky, very stony---------	30	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00				
CpB:							
Churchville---------	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
CqA:							
Claverack-----------	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
CqB:							
Claverack-----------	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
CrB:							
Collamer------------	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
CsA:							
Colton--------------	85	Slight		Well suited		Well suited	
CsB:							
Colton--------------	85	Slight		Well suited		Well suited	

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
CsC:							
Colton	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
CsD:							
Colton	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
CsE:							
Colton	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
CtA:							
Cornish	85	Somewhat limited		Moderately suited		Moderately suited	
		Flooding	0.50	Flooding	0.50	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50		
CuA:							
Cosad	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
CuB:							
Cosad	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
CvA:							
Covington	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
CwA:							
Croghan	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Too sandy	0.50	Depth to saturated zone *	0.50
		Sandiness	0.50	Depth to saturated zone *	0.50	Too sandy	0.50
CwB:							
Croghan	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Too sandy	0.50	Depth to saturated zone *	0.50
		Sandiness	0.50	Depth to saturated zone *	0.50	Too sandy	0.50
DeA:							
Deerfield	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
DeB:							
Deerfield	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DpC:							
Depeyster	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
				Depth to saturated zone *	0.50		
DpD:							
Depeyster	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Slope	0.50
DuC:							
Dunkirk	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
DuD:							
Dunkirk	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
DuE:							
Dunkirk	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
DxB:							
Duxbury	85	Slight		Well suited		Well suited	
ElB:							
Elmridge	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
FaD:							
Farmington, very rocky, very stony	85	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	0.50
		Slope	0.50				
FcB:							
Factoryville	45	Slight		Well suited		Well suited	
Colonie, calcareous substratum	30	Slight		Well suited		Well suited	
FcC:							
Factoryville	45	Slight		Moderately suited		Well suited	
				Slope	0.50		
Colonie, calcareous substratum	30	Slight		Moderately suited		Well suited	
				Slope	0.50		
FcD:							
Factoryville	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
FcD:							
Colonie, calcareous substratum	30	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
FdF:							
Factoryville	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
Dunkirk	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
FgB:							
Farmington, very rocky, very stony	45	Very limited		Moderately suited		Well suited	
		Depth to bedrock	1.00	Slope	0.50		
Galway, very rocky, very stony	30	Somewhat limited		Moderately suited		Well suited	
		Depth to bedrock	0.50	Slope	0.50		
FkF:							
Farmington, very stony	60	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00				
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
FnB:							
Fernlake, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
FnC:							
Fernlake, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
FnD:							
Fernlake, very bouldery	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
FnF:							
Fernlake, very bouldery	85	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
FrB:							
Factoryville	85	Slight		Well suited		Well suited	

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
FuA:							
Fluvaquents, frequently flooded	45	Very limited		Poorly suited		Moderately suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50		
Udifluvents, frequently flooded	30	Very limited		Poorly suited		Well suited	
		Flooding	1.00	Flooding	1.00		
GeB:							
Georgia	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
GeC:							
Georgia	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
				Depth to saturated zone *	0.50		
GoA:							
Gougeville	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
HaB:							
Hailesboro	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
HcB:							
Howard	85	Slight		Well suited		Well suited	
HcC:							
Howard	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
HcD:							
Howard	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
HdB:							
Hartland	85	Slight		Well suited		Well suited	
HgB:							
Howard	85	Slight		Well suited		Well suited	
HlB:							
Howard	85	Slight		Well suited		Well suited	
HlC:							
Howard	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
HmB:							
Howard	85	Slight		Well suited		Well suited	

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HnC:							
Hermon, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
HnD:							
Hermon, very bouldery	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Sandiness	0.50				
HrF:							
Hogback, very rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Knob Lock, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
HsD:							
Hollis, very stony	45	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	0.50
		Slope	0.50				
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
HsF:							
Hollis, very stony	45	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00				
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
KaB:							
Kalurah	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
KaC:							
Kalurah-------------	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
				Depth to saturated zone *	0.50		
KgB:							
Kalurah, very stony-	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
KgC:							
Kalurah, very stony-	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
				Depth to saturated zone *	0.50		
KyA:							
Kingsbury-----------	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
KyB:							
Kingsbury-----------	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
LnA:							
Livingston----------	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
		Surface stickiness	0.50	Ponding	0.50	Surface stickiness	0.50
				Surface stickiness	0.50		
LvA:							
Lovewell------------	85	Somewhat limited		Moderately suited		Moderately suited	
		Flooding	0.50	Flooding	0.50	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50		
LyD:							
Lyman, very rocky, very bouldery------	45	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
LyD:							
Knob Lock, very rocky, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
LyF:							
Lyman, very rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Knob Lock, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
MaB:							
Malone	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
MbB:							
Malone, very stony	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
McA:							
Massena	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
McB:							
Massena	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
MdA:							
Medomak	85	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Flooding	1.00		
				Depth to saturated zone *	1.00		
MhB:							
Monadnock	85	Slight		Well suited		Well suited	
MhC:							
Monadnock	85	Slight		Moderately suited		Well suited	
				Slope	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MkB:							
Monadnock, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
MkC:							
Monadnock, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
MkD:							
Monadnock, very bouldery	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
MkF:							
Monadnock, very bouldery	85	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
MmF:							
Monadnock, bouldery	55	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
Adams	25	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Sandiness	0.50				
MnC:							
Monadnock, rocky, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
Tunbridge, rocky, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
MnD:							
Monadnock, rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
Tunbridge, rocky, very bouldery	30	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
MnF:							
Monadnock, rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MnF:							
Tunbridge, rocky, very bouldery------	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
MoA:							
Mooers--------------	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
MuC:							
Mundalite, very bouldery-----------	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
MuD:							
Mundalite, very bouldery-----------	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
MwC:							
Mundalite, rocky, very bouldery------	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
Rawsonville, rocky, very bouldery------	30	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
MwD:							
Mundalite, rocky, very bouldery------	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Rawsonville, rocky, very bouldery------	30	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
NaA:							
Naumburg------------	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
NeB:							
Nellis	85	Slight		Well suited		Well suited	
NeC:							
Nellis	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
NeD:							
Nellis	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
NgA:							
Niagara	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
NgB:							
Niagara	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
NvB:							
Nicholville	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
OmA:							
Occum	85	Somewhat limited		Moderately suited		Well suited	
		Flooding	0.50	Flooding	0.50		
OwA:							
Ondawa	85	Somewhat limited		Moderately suited		Well suited	
		Flooding	0.50	Flooding	0.50		
Pc:							
Pits, quarry	85	Not rated		Not rated		Not rated	
Pd:							
Pits, sand and gravel	85	Not rated		Not rated		Not rated	
PfB:							
Pittsfield	85	Slight		Well suited		Well suited	
PfC:							
Pittsfield	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
PfD:							
Pittsfield	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
PfE:							
Pittsfield	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
PkA:							
Pleasant Lake	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
PlB:							
Pittsfield, rocky, very stony	45	Slight		Well suited		Well suited	
Chatfield, rocky, very stony	30	Somewhat limited		Well suited		Well suited	
		Depth to bedrock	0.50				
PlC:							
Pittsfield, rocky, very stony	45	Slight		Moderately suited		Well suited	
				Slope	0.50		
Chatfield, rocky, very stony	30	Somewhat limited		Moderately suited		Well suited	
		Depth to bedrock	0.50	Slope	0.50		
PlD:							
Pittsfield, rocky, very stony	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
Chatfield, rocky, very stony	30	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Slope	0.50
		Slope	0.50				
PlF:							
Pittsfield, rocky, very stony	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
Chatfield, rocky, very stony	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50				
PoA:							
Podunk	85	Somewhat limited		Moderately suited		Moderately suited	
		Flooding	0.50	Flooding	0.50	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50		
PrA:							
Pootatuck	85	Somewhat limited		Moderately suited		Moderately suited	
		Flooding	0.50	Flooding	0.50	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PtB:							
Pyrities------------	85	Slight		Well suited		Well suited	
PtC:							
Pyrities------------	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
PtD:							
Pyrities------------	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
PuC:							
Pyrities, very stony	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
PuD:							
Pyrities, very stony	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
PwC:							
Pyrities, very stony	45	Slight		Moderately suited		Well suited	
				Slope	0.50		
Nehasne, very stony-	30	Somewhat limited		Moderately suited		Well suited	
		Depth to bedrock	0.50	Slope	0.50		
PwD:							
Pyrities, very stony	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
Nehasne, very stony-	30	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Depth to bedrock	0.50				
PyC:							
Pyrities------------	45	Slight		Moderately suited		Well suited	
				Slope	0.50		
Nehasne-------------	30	Somewhat limited		Moderately suited		Well suited	
		Depth to bedrock	0.50	Slope	0.50		
PyD:							
Pyrities------------	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
Nehasne-------------	30	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Depth to bedrock	0.50				
RaC:							
Rawsonville, very rocky, very bouldery-----------	45	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Hogback, very rocky, very bouldery------	30	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
RaD:							
Rawsonville, very rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Hogback, very rocky, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
RaF:							
Rawsonville, very rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Hogback, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
RmA:							
Rippowam	85	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00		
RpF:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Lyman, very rocky, very bouldery	20	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
RsA:							
Roundabout	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
RuA:							
Rumney	85	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00		
RyA:							
Rumney	45	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00		
Burnt Vly	30	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
SeA:							
Searsport	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	0.50	Depth to saturated zone *	1.00	Too sandy	0.50
				Too sandy	0.50	Low strength	0.50
				Low strength	0.50		
SkB:							
Skerry	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
SnB:							
Sunapee, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
SpB:							
Sunapee	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
SrB:							
Skerry, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
SrC:							
Skerry, very bouldery	85	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
				Depth to saturated zone *	0.50		
StA:							
Stafford	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
SuA:							
Sun	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
TaA:							
Tahawus, very bouldery	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Rock fragments	0.50	Depth to saturated zone *	1.00	Rock fragments	0.50
		Low strength	0.50	Rock fragments	0.50	Low strength	0.50
				Low strength	0.50		
TeA:							
Typic Endoaquolls, very stony	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
				Depth to saturated zone *	1.00		
ToA:							
Tonawanda	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
TuC:							
Tunbridge, very rocky, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Lyman, very rocky, very bouldery	30	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
TuD:							
Tunbridge, very rocky, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
TuD:							
Lyman, very rocky, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
TuF:							
Tunbridge, very rocky, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Lyman, very rocky, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
UlC:							
Udorthents	100	Not Rated		Not Rated		Not Rated	
		Not rated (too variable)		Not rated (too variable)		Not rated (too variable)	
UmF:							
Udorthents, mine spoil	100	Not Rated		Not Rated		Not Rated	
		Not rated (too variable)		Not rated (too variable)		Not rated (too variable)	
VeB:							
Vergennes	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
VeC:							
Vergennes	85	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Depth to saturated zone *	0.50	Surface stickiness	0.50
				Surface stickiness	0.50		
VeD:							
Vergennes	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Surface stickiness	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Slope	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
VeE:							
Vergennes	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
W:							
Water	100	Not rated		Not rated		Not rated	
WeA:							
Wegatchie	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
WlA:							
Whallonsburg	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
WnA:							
Windsor	85	Slight		Well suited		Well suited	
WnB:							
Windsor	85	Slight		Well suited		Well suited	
WnC:							
Windsor	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
WnD:							
Windsor	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
WnE:							
Windsor	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
WoA:							
Wonsqueak	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		

* Depths and duration (months) of seasonal saturation can be found in the Water Table section of the 'Water Features' table.

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.]

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
10A:					
Pleasant Lake	45	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Burnt Vly	30	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
13A:					
Burnt Vly	40	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Rumney	30	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
Pleasant Lake	20	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
29C:					
Burnt Vly	40	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Colton	30	Moderate		Low	
		Droughty	0.50		
Rumney	20	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
113A:					
Ondawa	45	Low		Low	
Rumney	30	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
123A:					
Lovewell	45	Low		Moderate	
				Depth to saturated zone	0.20
Cornish	30	Low		High	
				Depth to saturated zone	1.00

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
350B:					
Duxbury, very stony-	85	Low		Low	
363A:					
Adams---------------	75	Low		Low	
363B:					
Adams---------------	75	Low		Low	
363D:					
Adams---------------	75	Low		Low	
363F:					
Adams---------------	75	Low		Low	
365A:					
Naumburg------------	45	Low		High	
				Depth to saturated zone	1.00
Croghan-------------	30	Low		Moderate	
				Depth to saturated zone	0.20
367A:					
Searsport-----------	40	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Haplosaprists-------	30	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Naumburg------------	20	Low		High	
				Depth to saturated zone	1.00
375A:					
Colton--------------	45	Moderate		Low	
		Droughty	0.50		
Adams---------------	30	Low		Low	
375C:					
Colton--------------	45	Moderate		Low	
		Droughty	0.50		
Adams---------------	30	Low		Low	
375D:					
Colton--------------	45	Moderate		Low	
		Droughty	0.50		
Adams---------------	30	Low		Low	
375F:					
Colton--------------	45	Moderate		Low	
		Droughty	0.50		

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
375F:					
Adams	30	Low		Low	
649C:					
Monadnock, rocky, very bouldery	40	Low		Low	
Tunbridge, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
Tahawus, very bouldery	20	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
650C:					
Monadnock, bouldery	40	Low		Low	
Adams	30	Low		Low	
Colton	20	Moderate		Low	
		Droughty	0.50		
650D:					
Monadnock, bouldery	40	Low		Low	
Adams	30	Low		Low	
Colton	20	Moderate		Low	
		Droughty	0.50		
651D:					
Monadnock, rocky, very bouldery	45	Low		Low	
Tunbridge, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
653C:					
Monadnock, very bouldery	85	Low		Low	
653D:					
Monadnock, very bouldery	85	Low		Low	
655B:					
Sunapee, very bouldery	45	Low		Moderate	
				Depth to saturated zone	0.20
Monadnock, very bouldery	30	Low		Low	

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
657C:					
Monadnock, very bouldery	60	Low		Low	
Tahawus, very bouldery	30	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
657D:					
Monadnock, very bouldery	60	Low		Low	
Tahawus, very bouldery	30	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
661C:					
Hermon, very bouldery	85	Low		Low	
661D:					
Hermon, very bouldery	85	Low		Low	
661F:					
Hermon, very bouldery	85	Low		Low	
705B:					
Adirondack, very bouldery	40	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
Tahawus, very bouldery	35	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
721C:					
Becket, rocky, very bouldery	40	Low		Moderate	
				Depth to dense layer	0.08
Tunbridge, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
721C:					
Skerry, rocky, very bouldery	20	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
721D:					
Becket, rocky, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.08
Tunbridge, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
721F:					
Becket, rocky, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.08
Tunbridge, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
723C:					
Becket, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.08
723D:					
Becket, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.08
723F:					
Becket, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.08
725B:					
Skerry, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
Becket, very bouldery	30	Low		Moderate	
				Depth to dense layer	0.08

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
727B:					
Skerry, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
Adirondack, very bouldery	30	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
831C:					
Tunbridge, very rocky, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
831D:					
Tunbridge, very rocky, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
831F:					
Tunbridge, very rocky, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
833C:					
Tunbridge, very rocky, very bouldery	40	Low		Moderate	
				Depth to bedrock	0.50
Adirondack, very rocky, very bouldery	30	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
833C:					
Lyman, very rocky, very bouldery	20	Low		High	
				Depth to bedrock	1.00
851D:					
Lyman, very rocky, very bouldery	45	Low		High	
				Depth to bedrock	1.00
Knob Lock, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
851F:					
Lyman, very rocky, very bouldery	45	Low		High	
				Depth to bedrock	1.00
Knob Lock, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
881F:					
Rock outcrop, very bouldery	40	Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
Lyman, very rocky, very bouldery	20	Low		High	
				Depth to bedrock	1.00
930C:					
Mundalite, rocky, very bouldery	40	Low		Moderate	
				Depth to dense layer	0.11
Rawsonville, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
Ampersand, rocky, very bouldery	20	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
931D:					
Mundalite, rocky, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.11
Rawsonville, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
931F:					
Mundalite, rocky, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.11
Rawsonville, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
932C:					
Mundalite, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.11
Ampersand, very bouldery	30	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
932D:					
Mundalite, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.11
Ampersand, very bouldery	30	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
934C:					
Ampersand, very bouldery	45	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
Wilmington, very bouldery	30	High		High	
		Depth to saturated zone	1.00	Depth to dense layer	1.00
				Depth to saturated zone	1.00

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
941C:					
Rawsonville, very rocky, very bouldery----------	45	Low		Moderate	
				Depth to bedrock	0.50
Hogback, very rocky, very bouldery------	30	Low		High	
				Depth to bedrock	1.00
941D:					
Rawsonville, very rocky, very bouldery----------	45	Low		Moderate	
				Depth to bedrock	0.50
Hogback, very rocky, very bouldery------	30	Low		High	
				Depth to bedrock	1.00
941F:					
Rawsonville, very rocky, very bouldery----------	45	Low		Moderate	
				Depth to bedrock	0.50
Hogback, very rocky, very bouldery------	30	Low		High	
				Depth to bedrock	1.00
944D:					
Hogback, very rocky, very bouldery------	45	Low		High	
				Depth to bedrock	1.00
Knob Lock, very rocky, very bouldery----------	30	Low		High	
				Depth to bedrock	1.00
944F:					
Hogback, very rocky, very bouldery------	45	Low		High	
				Depth to bedrock	1.00
Knob Lock, very rocky, very bouldery----------	30	Low		High	
				Depth to bedrock	1.00
948F:					
Rock outcrop, very bouldery----------	40	Not rated		Not rated	
Knob Lock, very bouldery----------	30	Low		High	
				Depth to bedrock	1.00

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
948F:					
Hogback, very bouldery	20	Low		High	
				Depth to bedrock	1.00
971D:					
Esther, rocky, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.08
Wallface, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
975C:					
Andic Cryaquods, very bouldery	45	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.08
Esther, very bouldery	35	Low		Moderate	
				Depth to dense layer	0.08
975D:					
Esther, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.08
Andic Cryaquods, very bouldery	35	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.08
992D:					
Wallface, very rocky, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Skylight, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
993F:					
Santanoni, very rocky, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Skylight, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential for windthrow: Rating class and limiting features	Potential for windthrow: Value
995D:					
Ricker, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
Couchsachraga, very rocky, very bouldery	25	Low		High	
				Depth to bedrock	1.00
Skylight, very rocky, very bouldery	20	Low		High	
				Depth to bedrock	1.00
995F:					
Ricker, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
Couchsachraga, very rocky, very bouldery	25	Low		High	
				Depth to bedrock	1.00
Skylight, very rocky, very bouldery	20	Low		High	
				Depth to bedrock	1.00
998F:					
Rock outcrop, very bouldery	30	Not rated		Not rated	
Ricker, very bouldery	25	Low		High	
				Depth to bedrock	1.00
Skylight, very bouldery	20	Low		High	
				Depth to bedrock	1.00
AdA:					
Adams	85	Low		Low	
AdB:					
Adams	85	Low		Low	
AdC:					
Adams	85	Low		Low	
AdD:					
Adams	85	Low		Low	
AdE:					
Adams	85	Low		Low	

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
AkA:					
Adirondack, very bouldery	85	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
AkB:					
Adirondack, very bouldery	85	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
AmB:					
Amenia	85	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
AmC:					
Amenia	85	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
BcB:					
Becket	85	Low		Moderate	
				Depth to dense layer	0.08
BcC:					
Becket	85	Low		Moderate	
				Depth to dense layer	0.08
BeB:					
Becket, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.08
BeC:					
Becket, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.08
BeD:					
Becket, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.08

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
BeF:					
Becket, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.08
BkC:					
Becket, rocky, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.08
Tunbridge, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
BkD:					
Becket, rocky, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.08
Tunbridge, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
BoB:					
Bombay	85	Low		Moderate	
				Depth to saturated zone	0.20
BuA:					
Bucksport	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
BvA:					
Burnt Vly	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
CaA:					
Catden	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
CbA:					
Colton, very bouldery	85	Moderate		Low	
		Droughty	0.50		
CbB:					
Colton, very bouldery	85	Moderate		Low	
		Droughty	0.50		

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
CbC:					
Colton, very bouldery-----------	85	Moderate		Low	
		Droughty	0.50		
CbD:					
Colton, very bouldery-----------	85	Moderate		Low	
		Droughty	0.50		
CgB:					
Cayuga--------------	85	Low		Moderate	
				Depth to saturated zone	0.20
CgC:					
Cayuga--------------	85	Low		Moderate	
				Depth to saturated zone	0.20
ChB:					
Champlain-----------	85	Moderate		Low	
		Droughty	0.50		
ChC:					
Champlain-----------	85	Moderate		Low	
		Droughty	0.50		
ChD:					
Champlain-----------	85	Moderate		Low	
		Droughty	0.50		
ChE:					
Champlain-----------	85	Moderate		Low	
		Droughty	0.50		
CkA:					
Charles-------------	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
ClB:					
Charlton------------	85	Low		Low	
ClC:					
Charlton------------	85	Low		Low	
ClD:					
Charlton------------	85	Low		Low	
CnC:					
Charlton, rocky, very stony---------	45	Low		Low	
Chatfield, rocky, very stony---------	30	Low		Moderate	
				Depth to bedrock	0.50
CnD:					
Charlton, rocky, very stony---------	45	Low		Low	

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
CnD:					
Chatfield, rocky, very stony	30	Low		Moderate	
				Depth to bedrock	0.50
CoB:					
Chatfield, very rocky, very stony	45	Low		Moderate	
				Depth to bedrock	0.50
Hollis, very rocky, very stony	30	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
CoC:					
Chatfield, very rocky, very stony	45	Low		Moderate	
				Depth to bedrock	0.50
Hollis, very rocky, very stony	30	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
CoD:					
Chatfield, very rocky, very stony	45	Low		Moderate	
				Depth to bedrock	0.50
Hollis, very rocky, very stony	30	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
CoF:					
Chatfield, very rocky, very stony	45	Low		Moderate	
				Depth to bedrock	0.50
Hollis, very rocky, very stony	30	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
CpB:					
Churchville	85	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
CqA:					
Claverack	85	Moderate		Moderate	
		Droughty	0.50	Depth to dense layer	0.48
				Depth to saturated zone	0.20
CqB:					
Claverack	85	Moderate		Moderate	
		Droughty	0.50	Depth to dense layer	0.48
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
CrB:					
Collamer	85	Low		Moderate	
				Depth to saturated zone	0.20
CsA:					
Colton	85	Moderate		Low	
		Droughty	0.50		
CsB:					
Colton	85	Moderate		Low	
		Droughty	0.50		
CsC:					
Colton	85	Moderate		Low	
		Droughty	0.50		
CsD:					
Colton	85	Moderate		Low	
		Droughty	0.50		
CsE:					
Colton	85	Moderate		Low	
		Droughty	0.50		
CtA:					
Cornish	85	Low		High	
				Depth to saturated zone	1.00
CuA:					
Cosad	85	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.66
CuB:					
Cosad	85	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.66
CvA:					
Covington	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
CwA:					
Croghan	85	Low		Moderate	
				Depth to saturated zone	0.20
CwB:					
Croghan	85	Low		Moderate	
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
DeA:					
Deerfield	85	Moderate		Moderate	
		Droughty	0.50	Depth to saturated zone	0.20
DeB:					
Deerfield	85	Moderate		Moderate	
		Droughty	0.50	Depth to saturated zone	0.20
DpC:					
Depeyster	85	Low		Moderate	
				Depth to saturated zone	0.20
DpD:					
Depeyster	85	Low		Moderate	
				Depth to saturated zone	0.20
DuC:					
Dunkirk	85	Low		Low	
DuD:					
Dunkirk	85	Low		Low	
DuE:					
Dunkirk	85	Low		Low	
DxB:					
Duxbury	85	Low		Low	
ElB:					
Elmridge	85	Low		Moderate	
				Depth to dense layer	0.66
				Depth to saturated zone	0.20
FaD:					
Farmington, very rocky, very stony	85	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
FcB:					
Factoryville	45	Moderate		Low	
		Droughty	0.50		
Colonie, calcareous substratum	30	Moderate		Low	
		Droughty	0.50		
FcC:					
Factoryville	45	Moderate		Low	
		Droughty	0.50		
Colonie, calcareous substratum	30	Moderate		Low	
		Droughty	0.50		

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
FcD:					
Factoryville--------	45	Moderate		Low	
		Droughty	0.50		
Colonie, calcareous substratum---------	30	Moderate		Low	
		Droughty	0.50		
FdF:					
Factoryville--------	45	Moderate		Low	
		Droughty	0.50		
Dunkirk-------------	30	Low		Low	
FgB:					
Farmington, very rocky, very stony--	45	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
Galway, very rocky, very stony---------	30	Low		Moderate	
				Depth to bedrock	0.50
FkF:					
Farmington, very stony--------------	60	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
Rock outcrop, very stony--------------	30	Not rated		Not rated	
FnB:					
Fernlake, very bouldery-----------	85	Low		Low	
FnC:					
Fernlake, very bouldery-----------	85	Low		Low	
FnD:					
Fernlake, very bouldery-----------	85	Low		Low	
FnF:					
Fernlake, very bouldery-----------	85	Low		Low	
FrB:					
Factoryville--------	85	Moderate		Low	
		Droughty	0.50		
FuA:					
Fluvaquents, frequently flooded-	45	High		High	
		Flooding/ponding	1.00	Depth to saturated zone	1.00

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
FuA:					
Udifluvents, frequently flooded	30	High		Low	
		Flooding/ponding	1.00		
GeB:					
Georgia	85	Low		Moderate	
				Depth to saturated zone	0.20
GeC:					
Georgia	85	Low		Moderate	
				Depth to saturated zone	0.20
GoA:					
Gougeville	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
HaB:					
Hailesboro	85	Low		High	
				Depth to saturated zone	1.00
HcB:					
Howard	85	Low		Low	
HcC:					
Howard	85	Low		Low	
HcD:					
Howard	85	Low		Low	
HdB:					
Hartland	85	Low		Low	
HgB:					
Howard	85	Low		Low	
HlB:					
Howard	85	Low		Low	
HlC:					
Howard	85	Low		Low	
HmB:					
Howard	85	Low		Low	
HnC:					
Hermon, very bouldery	85	Low		Low	
HnD:					
Hermon, very bouldery	85	Low		Low	
HrF:					
Hogback, very rocky, very bouldery	45	Low		High	
				Depth to bedrock	1.00

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
HrF:					
Knob Lock, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
HsD:					
Hollis, very stony	45	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
Rock outcrop, very stony	30	Not rated		Not rated	
HsF:					
Hollis, very stony	45	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
Rock outcrop, very stony	30	Not rated		Not rated	
KaB:					
Kalurah	85	Low		Moderate	
				Depth to saturated zone	0.20
KaC:					
Kalurah	85	Low		Moderate	
				Depth to saturated zone	0.20
KgB:					
Kalurah, very stony	85	Low		Moderate	
				Depth to saturated zone	0.20
KgC:					
Kalurah, very stony	85	Low		Moderate	
				Depth to saturated zone	0.20
KyA:					
Kingsbury	85	Low		High	
				Depth to saturated zone	1.00
KyB:					
Kingsbury	85	Low		High	
				Depth to saturated zone	1.00
LnA:					
Livingston	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
LvA:					
Lovewell	85	Low		Moderate	
				Depth to saturated zone	0.20
LyD:					
Lyman, very rocky, very bouldery	45	Low		High	
				Depth to bedrock	1.00
Knob Lock, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
LyF:					
Lyman, very rocky, very bouldery	45	Low		High	
				Depth to bedrock	1.00
Knob Lock, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
MaB:					
Malone	85	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.66
MbB:					
Malone, very stony	85	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.66
McA:					
Massena	85	Low		High	
				Depth to saturated zone	1.00
McB:					
Massena	85	Low		High	
				Depth to saturated zone	1.00
MdA:					
Medomak	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
MhB:					
Monadnock	85	Low		Low	
MhC:					
Monadnock	85	Low		Low	

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
MkB:					
Monadnock, very bouldery----------	85	Low		Low	
MkC:					
Monadnock, very bouldery----------	85	Low		Low	
MkD:					
Monadnock, very bouldery----------	85	Low		Low	
MkF:					
Monadnock, very bouldery----------	85	Low		Low	
MmF:					
Monadnock, bouldery-	55	Low		Low	
Adams---------------	25	Low		Low	
MnC:					
Monadnock, rocky, very bouldery------	45	Low		Low	
Tunbridge, rocky, very bouldery------	30	Low		Moderate	
				Depth to bedrock	0.50
MnD:					
Monadnock, rocky, very bouldery------	45	Low		Low	
Tunbridge, rocky, very bouldery------	30	Low		Moderate	
				Depth to bedrock	0.50
MnF:					
Monadnock, rocky, very bouldery------	45	Low		Low	
Tunbridge, rocky, very bouldery------	30	Low		Moderate	
				Depth to bedrock	0.50
MoA:					
Mooers--------------	85	Moderate		Moderate	
		Droughty	0.50	Depth to saturated zone	0.20
MuC:					
Mundalite, very bouldery----------	85	Low		Moderate	
				Depth to dense layer	0.11
MuD:					
Mundalite, very bouldery----------	85	Low		Moderate	
				Depth to dense layer	0.11

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
MwC:					
Mundalite, rocky, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.11
Rawsonville, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
MwD:					
Mundalite, rocky, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.11
Rawsonville, rocky, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
NaA:					
Naumburg	85	Low		High	
				Depth to saturated zone	1.00
NeB:					
Nellis	85	Low		Low	
NeC:					
Nellis	85	Low		Low	
NeD:					
Nellis	85	Low		Low	
NgA:					
Niagara	85	Low		High	
				Depth to saturated zone	1.00
NgB:					
Niagara	85	Low		High	
				Depth to saturated zone	1.00
NvB:					
Nicholville	85	Low		Moderate	
				Depth to saturated zone	0.20
OmA:					
Occum	85	Low		Low	
OwA:					
Ondawa	85	Low		Low	
Pc:					
Pits, quarry	85	Not rated		Not rated	

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
Pd:					
Pits, sand and gravel	85	Not rated		Not rated	
PfB:					
Pittsfield	85	Low		Low	
PfC:					
Pittsfield	85	Low		Low	
PfD:					
Pittsfield	85	Low		Low	
PfE:					
Pittsfield	85	Low		Low	
PkA:					
Pleasant Lake	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
PlB:					
Pittsfield, rocky, very stony	45	Low		Low	
Chatfield, rocky, very stony	30	Low		Moderate	
				Depth to bedrock	0.50
PlC:					
Pittsfield, rocky, very stony	45	Low		Low	
Chatfield, rocky, very stony	30	Low		Moderate	
				Depth to bedrock	0.50
PlD:					
Pittsfield, rocky, very stony	45	Low		Low	
Chatfield, rocky, very stony	30	Low		Moderate	
				Depth to bedrock	0.50
PlF:					
Pittsfield, rocky, very stony	45	Low		Low	
Chatfield, rocky, very stony	30	Low		Moderate	
				Depth to bedrock	0.50
PoA:					
Podunk	85	Low		Moderate	
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
PrA:					
Pootatuck-----------	85	Low		Moderate	
				Depth to saturated zone	0.20
PtB:					
Pyrities------------	85	Low		Low	
PtC:					
Pyrities------------	85	Low		Low	
PtD:					
Pyrities------------	85	Low		Low	
PuC:					
Pyrities, very stony	85	Low		Low	
PuD:					
Pyrities, very stony	85	Low		Low	
PwC:					
Pyrities, very stony	45	Low		Low	
Nehasne, very stony-	30	Low		Moderate	
				Depth to bedrock	0.50
PwD:					
Pyrities, very stony	45	Low		Low	
Nehasne, very stony-	30	Low		Moderate	
				Depth to bedrock	0.50
PyC:					
Pyrities------------	45	Low		Low	
Nehasne-------------	30	Low		Moderate	
				Depth to bedrock	0.50
PyD:					
Pyrities------------	45	Low		Low	
Nehasne-------------	30	Low		Moderate	
				Depth to bedrock	0.50
RaC:					
Rawsonville, very rocky, very bouldery-----------	45	Low		Moderate	
				Depth to bedrock	0.50
Hogback, very rocky, very bouldery------	30	Low		High	
				Depth to bedrock	1.00
RaD:					
Rawsonville, very rocky, very bouldery-----------	45	Low		Moderate	
				Depth to bedrock	0.50

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
RaD:					
Hogback, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
RaF:					
Rawsonville, very rocky, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Hogback, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
RmA:					
Rippowam	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
RpF:					
Rock outcrop, very bouldery	40	Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
Lyman, very rocky, very bouldery	20	Low		High	
				Depth to bedrock	1.00
RsA:					
Roundabout	85	Low		High	
				Depth to saturated zone	1.00
RuA:					
Rumney	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
RyA:					
Rumney	45	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
Burnt Vly	30	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
SeA:					
Searsport	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
SkB:					
Skerry	85	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
SnB:					
Sunapee, very bouldery	85	Low		Moderate	
				Depth to saturated zone	0.20
SpB:					
Sunapee	85	Low		Moderate	
				Depth to saturated zone	0.20
SrB:					
Skerry, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
SrC:					
Skerry, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
StA:					
Stafford	85	Low		High	
				Depth to saturated zone	1.00
SuA:					
Sun	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Depth to dense layer	0.48
TaA:					
Tahawus, very bouldery	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
TeA:					
Typic Endoaquolls, very stony	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
ToA:					
Tonawanda	85	Low		High	
				Depth to saturated zone	1.00
TuC:					
Tunbridge, very rocky, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
TuD:					
Tunbridge, very rocky, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
TuF:					
Tunbridge, very rocky, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very rocky, very bouldery	30	Low		High	
				Depth to bedrock	1.00
UlC:					
Udorthents	100	Not Rated		Not rated	
		Not rated (too variable)		Not rated (too variable)	
UmF:					
Udorthents, mine spoil	100	Not Rated		Not rated	
		Not rated (too variable)		Not rated (too variable)	
VeB:					
Vergennes	85	Low		Moderate	
				Depth to saturated zone	0.20
VeC:					
Vergennes	85	Low		Moderate	
				Depth to saturated zone	0.20
VeD:					
Vergennes	85	Low		Moderate	
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
VeE:					
Vergennes	85	Low		Moderate	
				Depth to saturated zone	0.20
W:					
Water	100	Not rated		Not rated	
WeA:					
Wegatchie	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
WlA:					
Whallonsburg	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
WnA:					
Windsor	85	Moderate		Low	
		Droughty	0.50		
WnB:					
Windsor	85	Moderate		Low	
		Droughty	0.50		
WnC:					
Windsor	85	Moderate		Low	
		Droughty	0.50		
WnD:					
Windsor	85	Moderate		Low	
		Droughty	0.50		
WnE:					
Windsor	85	Moderate		Low	
		Droughty	0.50		
WoA:					
Wonsqueak	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		

Table 11.—Camp Areas, Picnic Areas, and Playgrounds

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
10A:							
Pleasant Lake	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Burnt Vly	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
13A:							
Burnt Vly	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Rumney	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
Pleasant Lake	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
29C:							
Burnt Vly	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Colton	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.01	Slope	0.01	Gravel	1.00
						Slope	1.00
Rumney	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
113A:							
Ondawa	45	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.01	Flooding	0.60
		Too sandy	0.01			Too sandy	0.01

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
113A:							
Rumney	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
123A:							
Lovewell	45	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.56	Depth to saturated zone	0.88
		Depth to saturated zone	0.88			Flooding	0.60
Cornish	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
350B:							
Duxbury, very stony	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.81
363A:							
Adams	75	Not limited		Not limited		Not limited	
363B:							
Adams	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
363D:							
Adams	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
363F:							
Adams	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
365A:							
Naumburg	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Croghan	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	0.28	Depth to saturated zone	0.56
367A:							
Searsport	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
367A:							
Haplosaprists	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Naumburg	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
375A:							
Colton	45	Not limited		Not limited		Very limited	
						Gravel	1.00
Adams	30	Not limited		Not limited		Not limited	
375C:							
Colton	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Gravel	1.00
						Slope	1.00
Adams	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
375D:							
Colton	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Gravel	1.00
						Slope	1.00
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
375F:							
Colton	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Gravel	1.00
						Slope	1.00
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
649C:							
Monadnock, rocky, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
Tunbridge, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
649C:							
Tahawus, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
650C:							
Monadnock, bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Adams	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Colton	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Gravel	1.00
						Slope	1.00
650D:							
Monadnock, bouldery	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Colton	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Gravel	1.00
						Slope	1.00
651D:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
653C:							
Monadnock, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
653D:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
655B:							
Sunapee, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.24
Monadnock, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
657C:							
Monadnock, very bouldery	60	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
Tahawus, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
657D:							
Monadnock, very bouldery	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Tahawus, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
661C:							
Hermon, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Gravel	0.94
						Stones or boulders on surface	0.91
661D:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Gravel	0.94
						Stones or boulders on surface	0.91
661F:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Gravel	0.94
						Stones or boulders on surface	0.91
705B:							
Adirondack, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
						Slope	0.50

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
Tahawus, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
721C:							
Becket, rocky, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.20	Depth to pan	0.20	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Depth to pan	0.20
						Gravel	0.20
Tunbridge, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
Skerry, rocky, very bouldery	20	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to saturated zone	0.67	Depth to saturated zone	0.35	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.67
		Depth to pan	0.01	Depth to pan	0.01	Depth to pan	0.01
721D:							
Becket, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
						Gravel	0.20

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
721D:							
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
721F:							
Becket, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
						Gravel	0.20
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
723C:							
Becket, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.20	Depth to pan	0.20	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Depth to pan	0.20
						Gravel	0.20
723D:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
						Gravel	0.20
723F:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
						Gravel	0.20

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
725B:							
Skerry, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to saturated zone	0.67	Depth to saturated zone	0.35	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.67
		Depth to pan	0.01	Depth to pan	0.01	Depth to pan	0.01
Becket, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.20	Depth to pan	0.20	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Depth to pan	0.20
						Gravel	0.20
727B:							
Skerry, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to saturated zone	0.67	Depth to saturated zone	0.35	Depth to saturated zone	0.67
		Depth to pan	0.01	Depth to pan	0.01	Slope	0.50
						Depth to pan	0.01
Adirondack, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
						Slope	0.50
831C:							
Tunbridge, very rocky, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
831C:							
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
						Gravel	0.12
831D:							
Tunbridge, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.12
831F:							
Tunbridge, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.12

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
833C:							
Tunbridge, very rocky, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
Adirondack, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.79	Depth to pan	0.79	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Depth to pan	0.80
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
						Gravel	0.12
851D:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.12
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
851F:							
Lyman, very rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.12
Knob Lock, very rocky, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
881F:							
Rock Outcrop, very bouldery-----------	40	Not rated		Not rated		Not rated	
Knob Lock, very rocky, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Lyman, very rocky, very bouldery------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.12
930C:							
Mundalite, rocky, very bouldery------	40	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.71	Depth to pan	0.71	Stones or boulders on surface	0.91
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Depth to pan	0.71
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.24
						Gravel	0.02

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
930C:							
Rawsonville, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
Ampersand, rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.90	Depth to pan	0.90	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Depth to pan	0.90
931D:							
Mundalite, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.71	Depth to pan	0.71	Depth to pan	0.71
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Depth to saturated zone	0.24
						Gravel	0.02
Rawsonville, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
931F:							
Mundalite, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.71	Depth to pan	0.71	Depth to pan	0.71
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Depth to saturated zone	0.24
						Gravel	0.02

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
931F:							
Rawsonville, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
932C:							
Mundalite, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.71	Depth to pan	0.71	Stones or boulders on surface	0.91
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Depth to pan	0.71
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.24
						Gravel	0.02
Ampersand, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.90	Depth to pan	0.90	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Depth to pan	0.90
932D:							
Mundalite, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.71	Depth to pan	0.71	Depth to pan	0.71
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Depth to saturated zone	0.24
						Gravel	0.02
Ampersand, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Too steep	1.00	Depth to saturated zone	1.00
		Too steep	1.00	Depth to saturated zone	0.99	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.90	Depth to pan	0.90	Depth to pan	0.90

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
934C:							
Ampersand, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.90	Depth to pan	0.90	Depth to pan	0.90
						Slope	0.88
Wilmington, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	1.00	Depth to pan	1.00	Depth to pan	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.88
941C:							
Rawsonville, very rocky, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
941D:							
Rawsonville, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
941F:							
Rawsonville, very rocky, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
Hogback, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
944D:							
Hogback, very rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Knob Lock, very rocky, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
944F:							
Hogback, very rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Knob Lock, very rocky, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
948F:							
Rock Outcrop, very bouldery-----------	40	Not rated		Not rated		Not rated	

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
948F:							
Knob Lock, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Hogback, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
971D:							
Esther, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
		Depth to saturated zone	0.03	Depth to saturated zone	0.02	Depth to saturated zone	0.03
Wallface, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.01
975C:							
Andic Cryaquods, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.06	Depth to pan	0.06	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Gravel	0.78
						Depth to pan	0.06
Esther, very bouldery	35	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.20	Depth to pan	0.20	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Depth to pan	0.20
		Depth to saturated zone	0.03	Depth to saturated zone	0.02	Depth to saturated zone	0.03

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
975D:							
Esther, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
		Depth to saturated zone	0.03	Depth to saturated zone	0.02	Depth to saturated zone	0.03
Andic Cryaquods, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Too steep	1.00	Depth to saturated zone	1.00
		Too steep	1.00	Depth to saturated zone	0.99	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.06	Depth to pan	0.06	Gravel	0.78
						Depth to pan	0.06
992D:							
Wallface, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.01
Skylight, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
993F:							
Santanoni, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Gravel	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
						Stones or boulders on surface	0.91
						Depth to bedrock	0.01
Skylight, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
995D:							
Ricker, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Couchsachraga, very rocky, very bouldery	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Gravel	0.96
						Stones or boulders on surface	0.91
Skylight, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
995F:							
Ricker, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Couchsachraga, very rocky, very bouldery	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Gravel	0.96
						Stones or boulders on surface	0.91
Skylight, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
998F:							
Rock Outcrop, very bouldery	30	Not rated		Not rated		Not rated	
Ricker, very bouldery	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Skylight, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
AdA:							
Adams	85	Not limited		Not limited		Not limited	
AdB:							
Adams	85	Not limited		Not limited		Somewhat limited	
						Slope	0.88
AdC:							
Adams	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
AdD:							
Adams	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
AdE:							
Adams	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
AkA:							
Adirondack, very bouldery	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
AkB:							
Adirondack, very bouldery	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.79	Depth to pan	0.79	Slope	0.88
						Depth to pan	0.80

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
AmB:							
Amenia	85	Very limited		Very limited		Somewhat limited	
		Depth to pan	0.99	Depth to pan	0.99	Depth to pan	0.99
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
						Slope	0.88
AmC:							
Amenia	85	Very limited		Very limited		Very limited	
		Depth to pan	0.99	Depth to pan	0.99	Slope	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to pan	0.99
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.98
BcB:							
Becket	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to pan	0.20	Depth to pan	0.20	Slope	0.88
						Depth to pan	0.20
						Gravel	0.20
BcC:							
Becket	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
						Gravel	0.20
BeB:							
Becket, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Slope	0.88
						Depth to pan	0.20
						Gravel	0.20
BeC:							
Becket, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
						Gravel	0.20
BeD:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
						Gravel	0.20

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
BeF:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
						Gravel	0.20
BkC:							
Becket, rocky, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
						Gravel	0.20
Tunbridge, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
BkD:							
Becket, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.20	Depth to pan	0.20	Depth to pan	0.20
						Gravel	0.20
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
BoB:							
Bombay	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Gravel	1.00
		Gravel	0.03	Gravel	0.03	Depth to saturated zone	0.98
						Slope	0.88
						Large stones	0.01

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
BuA:							
Bucksport	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
BvA:							
Burnt Vly	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
CaA:							
Catden	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
CbA:							
Colton, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Gravel	1.00
						Stones or boulders on surface	0.91
CbB:							
Colton, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Gravel	1.00
						Stones or boulders on surface	0.91
						Slope	0.88
CbC:							
Colton, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Gravel	1.00
		Slope	0.37	Slope	0.37	Slope	1.00
						Stones or boulders on surface	0.91
CbD:							
Colton, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Gravel	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
						Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CgB:							
Cayuga	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.95	Depth to saturated zone	0.68	Depth to saturated zone	0.95
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
						Slope	0.50
CgC:							
Cayuga	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.95	Depth to saturated zone	0.68	Slope	1.00
		Slow water movement	0.60	Slow water movement	0.60	Depth to saturated zone	0.95
		Slope	0.37	Slope	0.37	Slow water movement	0.60
ChB:							
Champlain	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Slope	0.88
						Too sandy	0.85
ChC:							
Champlain	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Slope	1.00
		Slope	0.37	Slope	0.37	Too sandy	0.85
ChD:							
Champlain	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too sandy	0.85	Too sandy	0.85	Too sandy	0.85
ChE:							
Champlain	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too sandy	0.85	Too sandy	0.85	Too sandy	0.85
CkA:							
Charles	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
ClB:							
Charlton	85	Not limited		Not limited		Somewhat limited	
						Gravel	0.97
						Slope	0.88
						Large stones	0.01
ClC:							
Charlton	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
						Gravel	0.97
						Large stones	0.01
ClD:							
Charlton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel	0.97
						Large stones	0.01

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CnC:							
Charlton, rocky, very stony	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.37	Slope	0.37	Gravel	0.97
						Stones or boulders on surface	0.81
						Large stones	0.01
Chatfield, rocky, very stony	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.81
						Gravel	0.68
						Depth to bedrock	0.29
CnD:							
Charlton, rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Gravel	0.97
						Stones or boulders on surface	0.81
						Large stones	0.01
Chatfield, rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Gravel	0.68
						Depth to bedrock	0.29
CoB:							
Chatfield, very rocky, very stony	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	0.88
						Stones or boulders on surface	0.81
						Gravel	0.68
						Depth to bedrock	0.29

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
CoB:							
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	0.88
						Stones or boulders on surface	0.81
CoC:							
Chatfield, very rocky, very stony	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.81
						Gravel	0.68
						Depth to bedrock	0.29
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to bedrock	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.81
CoD:							
Chatfield, very rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Gravel	0.68
						Depth to bedrock	0.29
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
CoF:							
Chatfield, very rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Gravel	0.68
						Depth to bedrock	0.29

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
CoF:							
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
CpB:							
Churchville	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.84	Depth to pan	0.84	Depth to pan	0.84
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
						Slope	0.50
CqA:							
Claverack	85	Very limited		Very limited		Somewhat limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
CqB:							
Claverack	85	Very limited		Very limited		Somewhat limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
		Too sandy	0.37	Too sandy	0.37	Slope	0.88
						Too sandy	0.37
CrB:							
Collamer	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
		Slow water movement	0.15	Slow water movement	0.15	Slope	0.50
						Slow water movement	0.15
CsA:							
Colton	85	Not limited		Not limited		Very limited	
						Gravel	1.00
CsB:							
Colton	85	Not limited		Not limited		Very limited	
						Gravel	1.00
						Slope	0.88
CsC:							
Colton	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Gravel	1.00
						Slope	1.00

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CsD:							
Colton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Gravel	1.00
						Slope	1.00
CsE:							
Colton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Gravel	1.00
						Slope	1.00
CtA:							
Cornish	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
CuA:							
Cosad	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Too sandy	0.95	Too sandy	0.95	Too sandy	0.95
CuB:							
Cosad	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Too sandy	0.95	Too sandy	0.95	Too sandy	0.95
						Slope	0.88
CvA:							
Covington	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
CwA:							
Croghan	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	0.28	Depth to saturated zone	0.56
CwB:							
Croghan	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	0.28	Slope	0.88
						Depth to saturated zone	0.56
DeA:							
Deerfield	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.84	Depth to saturated zone	0.52	Depth to saturated zone	0.84
		Too sandy	0.36	Too sandy	0.36	Too sandy	0.36

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
DeB:							
Deerfield	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.84	Depth to saturated zone	0.52	Slope	0.88
		Too sandy	0.36	Too sandy	0.36	Depth to saturated zone	0.84
						Too sandy	0.36
DpC:							
Depeyster	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.98
DpD:							
Depeyster	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
DuC:							
Dunkirk	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
DuD:							
Dunkirk	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
DuE:							
Dunkirk	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
DxB:							
Duxbury	85	Not limited		Not limited		Somewhat limited	
						Slope	0.88
ElB:							
Elmridge	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.84	Depth to saturated zone	0.52	Depth to saturated zone	0.84
		Slow water movement	0.15	Slow water movement	0.15	Slope	0.50
						Slow water movement	0.15
FaD:							
Farmington, very rocky, very stony	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Gravel	0.22

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
FcB:							
Factoryville--------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Slope	0.88
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Too sandy	0.37
						Depth to saturated zone	0.01
Colonie, calcareous substratum---------	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Slope	0.88
						Too sandy	0.37
FcC:							
Factoryville--------	45	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.37	Too sandy	0.37	Slope	1.00
		Slope	0.37	Slope	0.37	Too sandy	0.37
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to saturated zone	0.01
Colonie, calcareous substratum---------	30	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.37	Too sandy	0.37	Slope	1.00
		Slope	0.37	Slope	0.37	Too sandy	0.37
FcD:							
Factoryville--------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to saturated zone	0.01
Colonie, calcareous substratum---------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
FdF:							
Factoryville--------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to saturated zone	0.01
Dunkirk-------------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
FgB:							
Farmington, very rocky, very stony--	45	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.81
						Gravel	0.22

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
FgB:							
Galway, very rocky, very stony	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.81
						Depth to bedrock	0.10
FkF:							
Farmington, very stony	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Gravel	0.22
Rock Outcrop, very stony	30	Not rated		Not rated		Not rated	
FnB:							
Fernlake, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.88
						Gravel	0.18
FnC:							
Fernlake, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91
						Gravel	0.18
FnD:							
Fernlake, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.18
FnF:							
Fernlake, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.18

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
FrB:							
Factoryville	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Slope	0.88
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Too sandy	0.37
						Depth to saturated zone	0.01
FuA:							
Fluvaquents, frequently flooded	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
Udifluvents, frequently flooded	30	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Too sandy	0.67	Flooding	1.00
		Too sandy	0.67	Flooding	0.40	Too sandy	0.67
GeB:							
Georgia	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
						Slope	0.88
GeC:							
Georgia	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.88
GoA:							
Gougeville	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
HaB:							
Hailesboro	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slope	0.50
						Slow water movement	0.15
HcB:							
Howard	85	Not limited		Not limited		Very limited	
						Gravel	1.00
						Slope	0.88
HcC:							
Howard	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Gravel	1.00
						Slope	1.00

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
HcD:							
Howard	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Gravel	1.00
						Slope	1.00
HdB:							
Hartland	85	Not limited		Not limited		Somewhat limited	
						Slope	0.50
HgB:							
Howard	85	Not limited		Not limited		Very limited	
						Gravel	1.00
						Slope	0.88
HlB:							
Howard	85	Not limited		Not limited		Very limited	
						Gravel	1.00
						Slope	0.88
HlC:							
Howard	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Gravel	1.00
						Slope	1.00
HmB:							
Howard	85	Not limited		Not limited		Very limited	
						Gravel	1.00
						Slope	0.88
HnC:							
Hermon, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Gravel	0.94
						Stones or boulders on surface	0.91
HnD:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Gravel	0.94
						Stones or boulders on surface	0.91
HrF:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HrF:							
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
HsD:							
Hollis, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
Rock Outcrop, very stony	30	Not rated		Not rated		Not rated	
HsF:							
Hollis, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
Rock Outcrop, very stony	30	Not rated		Not rated		Not rated	
KaB:							
Kalurah	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.67	Depth to saturated zone	0.35	Slope	0.88
						Depth to saturated zone	0.67
						Gravel	0.20
KaC:							
Kalurah	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.67	Slope	0.37	Slope	1.00
		Slope	0.37	Depth to saturated zone	0.35	Depth to saturated zone	0.67
						Gravel	0.20
KgB:							
Kalurah, very stony	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	0.88
		Depth to saturated zone	0.67	Depth to saturated zone	0.35	Stones or boulders on surface	0.81
						Depth to saturated zone	0.67
						Gravel	0.20

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
KgC:							
Kalurah, very stony	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Depth to saturated zone	0.67	Slope	0.37	Stones or boulders on surface	0.81
		Slope	0.37	Depth to saturated zone	0.35	Depth to saturated zone	0.67
						Gravel	0.20
KyA:							
Kingsbury	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
KyB:							
Kingsbury	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
						Slope	0.50
LnA:							
Livingston	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
LvA:							
Lovewell	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.56	Depth to saturated zone	0.88
		Depth to saturated zone	0.88			Flooding	0.60
LyD:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.12
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LyF:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.12
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
MaB:							
Malone	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.84	Depth to pan	0.84	Slope	0.88
						Depth to pan	0.84
MbB:							
Malone, very stony	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.84	Depth to pan	0.84	Slope	0.88
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to pan	0.84
						Stones or boulders on surface	0.81
McA:							
Massena	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Gravel	0.99
						Large stones	0.01
McB:							
Massena	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Gravel	0.99
						Slope	0.88
						Large stones	0.01
MdA:							
Medomak	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Ponding	1.00	Flooding	0.40	Ponding	1.00

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
MhB:							
Monadnock	85	Not limited		Not limited		Somewhat limited	
						Slope	0.88
MhC:							
Monadnock	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
MkB:							
Monadnock, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.88
MkC:							
Monadnock, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91
MkD:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
MkF:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
MmF:							
Monadnock, bouldery	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Adams	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
MnC:							
Monadnock, rocky, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
MnC:							
Tunbridge, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
MnD:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
MnF:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
MoA:							
Mooers	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.67	Depth to saturated zone	0.35	Depth to saturated zone	0.67
MuC:							
Mundalite, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.71	Depth to pan	0.71	Stones or boulders on surface	0.91

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
MuC:							
Mundalite, very bouldery		Slope	0.37	Slope	0.37	Depth to pan	0.71
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Depth to saturated zone	0.24
						Gravel	0.02
MuD:							
Mundalite, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.71	Depth to pan	0.71	Depth to pan	0.71
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Depth to saturated zone	0.24
						Gravel	0.02
MwC:							
Mundalite, rocky, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to pan	0.71	Depth to pan	0.71	Stones or boulders on surface	0.91
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Depth to pan	0.71
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.24
						Gravel	0.02
Rawsonville, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
MwD:							
Mundalite, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to pan	0.71	Depth to pan	0.71	Depth to pan	0.71
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Depth to saturated zone	0.24
						Gravel	0.02

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MwD:							
Rawsonville, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
NaA:							
Naumburg	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
NeB:							
Nellis	85	Not limited		Not limited		Somewhat limited	
						Slope	0.88
NeC:							
Nellis	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
NeD:							
Nellis	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
NgA:							
Niagara	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
NgB:							
Niagara	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slope	0.50
						Slow water movement	0.15
NvB:							
Nicholville	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
						Slope	0.50
OmA:							
Occum	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.01	Flooding	0.60
		Too sandy	0.01			Too sandy	0.01
OwA:							
Ondawa	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.01	Flooding	0.60
		Too sandy	0.01			Too sandy	0.01
Pc:							
Pits, Quarry	85	Not rated		Not rated		Not rated	

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Pd:							
Pits, Sand And Gravel	85	Not rated		Not rated		Not rated	
PfB:							
Pittsfield	85	Not limited		Not limited		Somewhat limited	
						Slope	0.88
						Gravel	0.22
PfC:							
Pittsfield	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
						Gravel	0.22
PfD:							
Pittsfield	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel	0.22
PfE:							
Pittsfield	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel	0.22
PkA:							
Pleasant Lake	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
PlB:							
Pittsfield, rocky, very stony	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	0.88
						Stones or boulders on surface	0.81
						Gravel	0.22
Chatfield, rocky, very stony	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	0.88
						Stones or boulders on surface	0.81
						Gravel	0.68
						Depth to bedrock	0.29

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
PlC:							
Pittsfield, rocky, very stony	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.81
						Gravel	0.22
Chatfield, rocky, very stony	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.81
						Gravel	0.68
						Depth to bedrock	0.29
PlD:							
Pittsfield, rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Gravel	0.22
Chatfield, rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Gravel	0.68
						Depth to bedrock	0.29
PlF:							
Pittsfield, rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Gravel	0.22
Chatfield, rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Gravel	0.68
						Depth to bedrock	0.29

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PoA:							
Podunk	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98			Flooding	0.60
PrA:							
Pootatuck	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.56	Depth to saturated zone	0.88
		Depth to saturated zone	0.88	Too sandy	0.01	Flooding	0.60
		Too sandy	0.01			Too sandy	0.01
PtB:							
Pyrities	85	Not limited		Not limited		Somewhat limited	
						Slope	0.88
PtC:							
Pyrities	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
PtD:							
Pyrities	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
PuC:							
Pyrities, very stony	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.81
PuD:							
Pyrities, very stony	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
PwC:							
Pyrities, very stony	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.81
Nehasne, very stony	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to bedrock	0.84
						Stones or boulders on surface	0.81

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
PwD:							
Pyrities, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
Nehasne, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to bedrock	0.84
						Stones or boulders on surface	0.81
PyC:							
Pyrities	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
Nehasne	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
						Depth to bedrock	0.84
PyD:							
Pyrities	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Nehasne	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.84
RaC:							
Rawsonville, very rocky, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91
RaD:							
Rawsonville, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
RaD:							
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
RaF:							
Rawsonville, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
RmA:							
Rippowam	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
RpF:							
Rock Outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too acid	1.00	Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too acid	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.12
RsA:							
Roundabout	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
RuA:							
Rumney	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
RyA:							
Rumney	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
Burnt Vly	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
SeA:							
Searsport	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
SkB:							
Skerry	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.67	Depth to saturated zone	0.35	Slope	0.88
		Depth to pan	0.01	Depth to pan	0.01	Depth to saturated zone	0.67
						Depth to pan	0.01
SnB:							
Sunapee, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Slope	0.88
						Depth to saturated zone	0.24
SpB:							
Sunapee	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.24	Depth to saturated zone	0.12	Slope	0.88
						Depth to saturated zone	0.24
SrB:							
Skerry, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to saturated zone	0.67	Depth to saturated zone	0.35	Slope	0.88
		Depth to pan	0.01	Depth to pan	0.01	Depth to saturated zone	0.67
						Depth to pan	0.01

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
SrC:							
Skerry, very bouldery-----------	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Depth to saturated zone	0.67	Slope	0.37	Stones or boulders on surface	0.91
		Slope	0.37	Depth to saturated zone	0.35	Depth to saturated zone	0.67
		Depth to pan	0.01	Depth to pan	0.01	Depth to pan	0.01
StA:							
Stafford------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
SuA:							
Sun-----------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
TaA:							
Tahawus, very bouldery-----------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
TeA:							
Typic Endoaquolls, very stony---------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
ToA:							
Tonawanda-----------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
TuC:							
Tunbridge, very rocky, very bouldery-----------	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Slope	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TuC:							
Lyman, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.91
						Gravel	0.12
TuD:							
Tunbridge, very rocky, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
Lyman, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.12
TuF:							
Tunbridge, very rocky, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Gravel	0.21
Lyman, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Gravel	0.12
UlC:							
Udorthents----------	100	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.15	Slow water movement	0.15	Slope	1.00
		Slope	0.01	Slope	0.01	Gravel	0.97
						Slow water movement	0.15
						Large stones	0.01

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
UmF:							
Udorthents, Mine Spoil	100	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
VeB:							
Vergennes	85	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.84	Depth to saturated zone	0.52	Depth to saturated zone	0.84
						Slope	0.50
VeC:							
Vergennes	85	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slope	1.00
		Depth to saturated zone	0.84	Depth to saturated zone	0.52	Slow water movement	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.84
VeD:							
Vergennes	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.84	Depth to saturated zone	0.52	Depth to saturated zone	0.84
VeE:							
Vergennes	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.84	Depth to saturated zone	0.52	Depth to saturated zone	0.84
W:							
Water	100	Not rated		Not rated		Not rated	
WeA:							
Wegatchie	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
WlA:							
Whallonsburg	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
WnA:							
Windsor	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.36	Too sandy	0.36	Too sandy	0.36

Table 11.—Camp Areas, Picnic Areas, and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WnB:							
Windsor	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.36	Too sandy	0.36	Slope	0.88
						Too sandy	0.36
WnC:							
Windsor	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
		Too sandy	0.36	Too sandy	0.36	Too sandy	0.36
WnD:							
Windsor	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too sandy	0.36	Too sandy	0.36	Too sandy	0.36
WnE:							
Windsor	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too sandy	0.36	Too sandy	0.36	Too sandy	0.36
WoA:							
Wonsqueak	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
10A:							
Pleasant Lake-------	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Burnt Vly-----------	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
13A:							
Burnt Vly-----------	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Rumney--------------	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
Pleasant Lake-------	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
29C:							
Burnt Vly-----------	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Colton--------------	30	Not limited		Not limited		Very limited	
						Droughty	1.00
						Slope	0.01
Rumney--------------	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
113A:							
Ondawa--------------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Flooding	0.60

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
113A:							
Rumney	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
123A:							
Lovewell	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Flooding	0.60
						Depth to saturated zone	0.56
Cornish	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
350B:							
Duxbury, very stony	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Slope	0.04
363A:							
Adams	75	Not limited		Not limited		Somewhat limited	
						Droughty	0.04
363B:							
Adams	75	Not limited		Not limited		Somewhat limited	
						Droughty	0.04
						Slope	0.04
363D:							
Adams	75	Very limited		Not limited		Very limited	
		Slope	1.00			Too steep	1.00
						Droughty	0.04
363F:							
Adams	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
						Droughty	0.04
365A:							
Naumburg	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.10
Croghan	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Droughty	0.51
						Depth to saturated zone	0.28
367A:							
Searsport	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
367A:							
Haplosaprists	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Naumburg	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.10
375A:							
Colton	45	Not limited		Not limited		Very limited	
						Droughty	1.00
Adams	30	Not limited		Not limited		Somewhat limited	
						Droughty	0.04
375C:							
Colton	45	Not limited		Not limited		Very limited	
						Droughty	1.00
						Slope	0.04
Adams	30	Not limited		Not limited		Somewhat limited	
						Droughty	0.04
						Slope	0.04
375D:							
Colton	45	Very limited		Not limited		Very limited	
		Slope	1.00			Too steep	1.00
						Droughty	1.00
Adams	30	Very limited		Not limited		Very limited	
		Slope	1.00			Too steep	1.00
						Droughty	0.04
375F:							
Colton	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
						Droughty	1.00
Adams	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
						Droughty	0.04
649C:							
Monadnock, rocky, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.04
Tunbridge, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Slope	0.04

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
649C:							
Tahawus, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
650C:							
Monadnock, bouldery	40	Not limited		Not limited		Somewhat limited	
						Slope	0.04
Adams	30	Not limited		Not limited		Somewhat limited	
						Droughty	0.04
						Slope	0.04
Colton	20	Not limited		Not limited		Very limited	
						Droughty	1.00
						Slope	0.04
650D:							
Monadnock, bouldery	40	Very limited		Not limited		Very limited	
		Slope	1.00			Too steep	1.00
Adams	30	Very limited		Not limited		Very limited	
		Slope	1.00			Too steep	1.00
						Droughty	0.04
Colton	20	Very limited		Not limited		Very limited	
		Slope	1.00			Too steep	1.00
						Droughty	1.00
651D:							
Monadnock, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.71
653C:							
Monadnock, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.37

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
653D:							
Monadnock, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
655B:							
Sunapee, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to saturated zone	0.12
						Slope	0.04
Monadnock, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.04
657C:							
Monadnock, very bouldery	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.04
Tahawus, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
657D:							
Monadnock, very bouldery	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
Tahawus, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
661C:							
Hermon, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.04
						Droughty	0.02
661D:							
Hermon, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Droughty	0.02
661F:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Droughty	0.02
705B:							
Adirondack, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.79
Tahawus, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
721C:							
Becket, rocky, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.20
						Slope	0.04

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
721C:							
Tunbridge, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Slope	0.04
Skerry, rocky, very bouldery	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Depth to saturated zone	0.35
						Slope	0.04
						Depth to pan	0.01
721D:							
Becket, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to pan	0.20
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.71
721F:							
Becket, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.20
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
723C:							
Becket, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.20
						Slope	0.04

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
723D:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to pan	0.20
723F:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.20
725B:							
Skerry, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Depth to saturated zone	0.35
						Slope	0.04
						Depth to pan	0.01
Becket, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.20
						Slope	0.04
727B:							
Skerry, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Depth to saturated zone	0.35
						Depth to pan	0.01
Adirondack, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.79

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
831C:							
Tunbridge, very rocky, very bouldery-----------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Slope	0.04
Lyman, very rocky, very bouldery------	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
						Slope	0.04
831D:							
Tunbridge, very rocky, very bouldery-----------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.71
Lyman, very rocky, very bouldery------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
831F:							
Tunbridge, very rocky, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
831F:							
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
833C:							
Tunbridge, very rocky, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Slope	0.04
Adirondack, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.79
						Slope	0.04
Lyman, very rocky, very bouldery	20	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
						Slope	0.04
851D:							
Lyman, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
851D:							
Knob Lock, very rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
851F:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
881F:							
Rock Outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
881F:							
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
930C:							
Mundalite, rocky, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.71
						Depth to saturated zone	0.12
						Slope	0.04
Rawsonville, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
						Slope	0.04
Ampersand, rocky, very bouldery	20	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.98	Depth to saturated zone	0.99
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.90
						Slope	0.04
931D:							
Mundalite, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to pan	0.71
						Depth to saturated zone	0.12
Rawsonville, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.86

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
931F:							
Mundalite, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.71
						Depth to saturated zone	0.12
Rawsonville, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
932C:							
Mundalite, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.71
						Depth to saturated zone	0.12
						Slope	0.04
Ampersand, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.98	Depth to saturated zone	0.99
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.90
						Slope	0.04
932D:							
Mundalite, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to pan	0.71
						Depth to saturated zone	0.12
Ampersand, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.98	Too steep	1.00
		Depth to saturated zone	0.98	Stones or boulders on surface	0.91	Depth to saturated zone	0.99
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to pan	0.90

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
934C:							
Ampersand, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.98	Depth to saturated zone	0.99
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.90
Wilmington, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to pan	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to saturated zone	1.00
						Stones or boulders on surface	0.91
941C:							
Rawsonville, very rocky, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
						Slope	0.04
Hogback, very rocky, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Slope	0.04
941D:							
Rawsonville, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Stones or boulders on surface	0.91

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
941F:							
Rawsonville, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
944D:							
Hogback, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Stones or boulders on surface	0.91
Knob Lock, very rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
944F:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
944F:							
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
948F:							
Rock Outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
Hogback, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
971D:							
Esther, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to pan	0.20
						Depth to saturated zone	0.02
Wallface, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.01

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
975C:							
Andic Cryaquods, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.98	Depth to saturated zone	0.99
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.06
						Slope	0.04
Esther, very bouldery	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.20
						Slope	0.04
						Depth to saturated zone	0.02
975D:							
Esther, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Too steep	1.00
		Slope	0.50			Stones or boulders on surface	0.91
						Depth to pan	0.20
						Depth to saturated zone	0.02
Andic Cryaquods, very bouldery	35	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.98	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to saturated zone	0.99
		Slope	0.50			Stones or boulders on surface	0.91
						Depth to pan	0.06
992D:							
Wallface, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91	Slope	0.22	Stones or boulders on surface	0.91
						Depth to bedrock	0.01

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
992D:							
Skylight, very rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91	Slope	0.22	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.02
993F:							
Santanoni, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.01
Skylight, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.02
995D:							
Ricker, very rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.06
Couchsachraga, very rocky, very bouldery	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Depth to bedrock	1.00
		Stones or boulders on surface	0.91			Too steep	1.00
						Stones or boulders on surface	0.91
						Droughty	0.91

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
995D:							
Skylight, very rocky, very bouldery	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.02
995F:							
Ricker, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.06
Couchsachraga, very rocky, very bouldery	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Too steep	1.00
						Stones or boulders on surface	0.91
						Droughty	0.91
Skylight, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.02
998F:							
Rock Outcrop, very bouldery	30	Not rated		Not rated		Not rated	

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
998F:							
Ricker, very bouldery	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.06
Skylight, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.02
AdA:							
Adams	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.04
AdB:							
Adams	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.04
AdC:							
Adams	85	Not limited		Not limited		Somewhat limited	
						Slope	0.37
						Droughty	0.04
AdD:							
Adams	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	0.04
AdE:							
Adams	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Droughty	0.04
AkA:							
Adirondack, very bouldery	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.79

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
AkB:							
Adirondack, very bouldery	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.79
AmB:							
Amenia	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to pan	0.99
						Depth to saturated zone	0.75
						Droughty	0.03
AmC:							
Amenia	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to pan	0.99
						Depth to saturated zone	0.75
						Slope	0.37
						Droughty	0.03
BcB:							
Becket	85	Not limited		Not limited		Somewhat limited	
						Depth to pan	0.20
BcC:							
Becket	85	Not limited		Not limited		Somewhat limited	
						Slope	0.37
						Depth to pan	0.20
BeB:							
Becket, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.20
BeC:							
Becket, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.37
						Depth to pan	0.20
BeD:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to pan	0.20

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
BeF:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.20
BkC:							
Becket, rocky, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.37
						Depth to pan	0.20
Tunbridge, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Slope	0.37
BkD:							
Becket, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to pan	0.20
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.71
BoB:							
Bombay	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Gravel	0.03
						Large stones	0.01
BuA:							
Bucksport	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
BvA:							
Burnt Vly-----------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
CaA:							
Catden--------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
CbA:							
Colton, very bouldery-----------	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Droughty	1.00
						Stones or boulders on surface	0.91
CbB:							
Colton, very bouldery-----------	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Droughty	1.00
						Stones or boulders on surface	0.91
CbC:							
Colton, very bouldery-----------	85	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Droughty	1.00
						Stones or boulders on surface	0.91
						Slope	0.37
CbD:							
Colton, very bouldery-----------	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Droughty	1.00
						Stones or boulders on surface	0.91
CgB:							
Cayuga--------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.32	Depth to saturated zone	0.32	Depth to saturated zone	0.68

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
CgC:							
Cayuga	85	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.68
		Depth to saturated zone	0.32	Depth to saturated zone	0.32	Slope	0.37
ChB:							
Champlain	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	1.00
ChC:							
Champlain	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	1.00
						Slope	0.37
ChD:							
Champlain	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Too steep	1.00
		Slope	0.50			Droughty	1.00
ChE:							
Champlain	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.85	Too steep	1.00
		Too sandy	0.85	Slope	0.78	Droughty	1.00
CkA:							
Charles	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
ClB:							
Charlton	85	Not limited		Not limited		Somewhat limited	
						Large stones	0.01
ClC:							
Charlton	85	Not limited		Not limited		Somewhat limited	
						Slope	0.37
						Large stones	0.01
ClD:							
Charlton	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Large stones	0.01
CnC:							
Charlton, rocky, very stony	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Slope	0.37
						Large stones	0.01
Chatfield, rocky, very stony	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Slope	0.37
						Depth to bedrock	0.29

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
CnD:							
Charlton, rocky, very stony	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Stones or boulders on surface	0.81
						Large stones	0.01
Chatfield, rocky, very stony	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Stones or boulders on surface	0.81
						Depth to bedrock	0.29
CoB:							
Chatfield, very rocky, very stony	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Depth to bedrock	0.29
Hollis, very rocky, very stony	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to bedrock	1.00
						Droughty	1.00
						Stones or boulders on surface	0.81
CoC:							
Chatfield, very rocky, very stony	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Slope	0.37
						Depth to bedrock	0.29
Hollis, very rocky, very stony	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to bedrock	1.00
						Droughty	1.00
						Stones or boulders on surface	0.81
						Slope	0.37

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
CoD:							
Chatfield, very rocky, very stony	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Stones or boulders on surface	0.81
						Depth to bedrock	0.29
Hollis, very rocky, very stony	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Depth to bedrock	1.00
						Droughty	1.00
						Stones or boulders on surface	0.81
CoF:							
Chatfield, very rocky, very stony	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Depth to bedrock	0.29
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to bedrock	1.00
						Droughty	1.00
						Stones or boulders on surface	0.81
CpB:							
Churchville	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Depth to pan	0.84
						Droughty	0.59
CqA:							
Claverack	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Depth to saturated zone	0.56
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Droughty	0.19

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
CqB:							
Claverack	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Depth to saturated zone	0.56
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Droughty	0.19
CrB:							
Collamer	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
CsA:							
Colton	85	Not limited		Not limited		Very limited	
						Droughty	1.00
CsB:							
Colton	85	Not limited		Not limited		Very limited	
						Droughty	1.00
CsC:							
Colton	85	Not limited		Not limited		Very limited	
						Droughty	1.00
						Slope	0.37
CsD:							
Colton	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	1.00
CsE:							
Colton	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Droughty	1.00
CtA:							
Cornish	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
CuA:							
Cosad	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.95	Too sandy	0.95	Droughty	0.91
CuB:							
Cosad	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.95	Too sandy	0.95	Droughty	0.91
CvA:							
Covington	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too clayey	1.00	Too clayey	1.00	Too clayey	1.00

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
CwA:							
Croghan	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Droughty	0.51
						Depth to saturated zone	0.28
CwB:							
Croghan	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Droughty	0.51
						Depth to saturated zone	0.28
DeA:							
Deerfield	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.36	Too sandy	0.36	Droughty	1.00
		Depth to saturated zone	0.14	Depth to saturated zone	0.14	Depth to saturated zone	0.52
DeB:							
Deerfield	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.36	Too sandy	0.36	Droughty	1.00
		Depth to saturated zone	0.14	Depth to saturated zone	0.14	Depth to saturated zone	0.52
DpC:							
Depeyster	85	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Slope	0.37
DpD:							
Depeyster	85	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Too steep	1.00
		Slope	0.50	Depth to saturated zone	0.44	Depth to saturated zone	0.75
		Depth to saturated zone	0.44				
DuC:							
Dunkirk	85	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.37
DuD:							
Dunkirk	85	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Too steep	1.00
		Slope	0.50				
DuE:							
Dunkirk	85	Very limited		Very limited		Very limited	
		Slope	1.00	Water erosion	1.00	Too steep	1.00
		Water erosion	1.00	Slope	0.78		
DxB:							
Duxbury	85	Not limited		Not limited		Not limited	

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
ElB:							
Elmridge------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.14	Depth to saturated zone	0.14	Depth to saturated zone	0.52
FaD:							
Farmington, very rocky, very stony--	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Depth to bedrock	1.00
						Droughty	1.00
						Stones or boulders on surface	0.81
FcB:							
Factoryville--------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Droughty	0.46
						Depth to saturated zone	0.01
Colonie, calcareous substratum---------	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Droughty	0.87
FcC:							
Factoryville--------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Droughty	0.46
						Slope	0.37
						Depth to saturated zone	0.01
Colonie, calcareous substratum---------	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Droughty	0.87
						Slope	0.37
FcD:							
Factoryville--------	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Too sandy	0.37	Too steep	1.00
		Too sandy	0.37			Droughty	0.46
						Depth to saturated zone	0.01
Colonie, calcareous substratum---------	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Too sandy	0.37	Too steep	1.00
		Too sandy	0.37			Droughty	0.87
FdF:							
Factoryville--------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Too sandy	0.37	Too sandy	0.37	Droughty	0.46
						Depth to saturated zone	0.01
Dunkirk-------------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Water erosion	1.00	Too steep	1.00
		Water erosion	1.00	Slope	1.00		

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
FgB:							
Farmington, very rocky, very stony	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to bedrock	1.00
						Droughty	1.00
						Stones or boulders on surface	0.81
						Slope	0.04
Galway, very rocky, very stony	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Depth to bedrock	0.10
						Droughty	0.07
						Slope	0.04
FkF:							
Farmington, very stony	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to bedrock	1.00
						Droughty	1.00
						Stones or boulders on surface	0.81
Rock Outcrop, very stony	30	Not rated		Not rated		Not rated	
FnB:							
Fernlake, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Droughty	0.01
FnC:							
Fernlake, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.37
						Droughty	0.01
FnD:							
Fernlake, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Droughty	0.01

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
FnF:							
Fernlake, very bouldery	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Droughty	0.01
FrB:							
Factoryville	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Droughty	0.46
						Depth to saturated zone	0.01
FuA:							
Fluvaquents, frequently flooded	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
Udifluvents, frequently flooded	30	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.67	Too sandy	0.67	Flooding	1.00
		Flooding	0.40	Flooding	0.40		
GeB:							
Georgia	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
GeC:							
Georgia	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
						Slope	0.37
GoA:							
Gougeville	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.37	Too sandy	0.37	Droughty	0.28
HaB:							
Hailesboro	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
HcB:							
Howard	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.71
HcC:							
Howard	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.71
						Slope	0.37

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
HcD:							
Howard	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	0.71
HdB:							
Hartland	85	Not limited		Not limited		Not limited	
HgB:							
Howard	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.71
HlB:							
Howard	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.17
HlC:							
Howard	85	Not limited		Not limited		Somewhat limited	
						Slope	0.37
						Droughty	0.17
HmB:							
Howard	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.17
HnC:							
Hermon, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.37
						Droughty	0.02
HnD:							
Hermon, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Droughty	0.02
HrF:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
HrF:							
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
HsD:							
Hollis, very stony	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Depth to bedrock	1.00
						Droughty	1.00
						Stones or boulders on surface	0.81
Rock Outcrop, very stony	30	Not rated		Not rated		Not rated	
HsF:							
Hollis, very stony	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to bedrock	1.00
						Droughty	1.00
						Stones or boulders on surface	0.81
Rock Outcrop, very stony	30	Not rated		Not rated		Not rated	
KaB:							
Kalurah	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Depth to saturated zone	0.35
KaC:							
Kalurah	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Slope	0.37
						Depth to saturated zone	0.35
KgB:							
Kalurah, very stony	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Depth to saturated zone	0.35

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
KgC:							
Kalurah, very stony	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Slope	0.37
						Depth to saturated zone	0.35
KyA:							
Kingsbury	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
KyB:							
Kingsbury	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
LnA:							
Livingston	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
LvA:							
Lovewell	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Flooding	0.60
						Depth to saturated zone	0.56
LyD:							
Lyman, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
Knob Lock, very rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
LyF:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
MaB:							
Malone	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Depth to pan	0.84
						Droughty	0.01
MbB:							
Malone, very stony	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to pan	0.84
						Stones or boulders on surface	0.81
						Droughty	0.01
McA:							
Massena	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Large stones	0.01
McB:							
Massena	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Large stones	0.01
MdA:							
Medomak	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
MhB:							
Monadnock	85	Not limited		Not limited		Not limited	
MhC:							
Monadnock	85	Not limited		Not limited		Somewhat limited	
						Slope	0.37
MkB:							
Monadnock, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
MkC:							
Monadnock, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.37
MkD:							
Monadnock, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
MkF:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
MmF:							
Monadnock, bouldery	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
Adams	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
						Droughty	0.04
MnC:							
Monadnock, rocky, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Slope	0.37
Tunbridge, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Slope	0.37

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
MnD:							
Monadnock, rocky, very bouldery------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
Tunbridge, rocky, very bouldery------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.71
MnF:							
Monadnock, rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
Tunbridge, rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
MoA:							
Mooers--------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Droughty	0.70
						Depth to saturated zone	0.35
MuC:							
Mundalite, very bouldery-----------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.71
						Slope	0.37
						Depth to saturated zone	0.12

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
MuD:							
Mundalite, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to pan	0.71
						Depth to saturated zone	0.12
MwC:							
Mundalite, rocky, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to pan	0.71
						Depth to saturated zone	0.12
						Slope	0.04
Rawsonville, rocky, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
						Slope	0.04
MwD:							
Mundalite, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to pan	0.71
						Depth to saturated zone	0.12
Rawsonville, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.86
NaA:							
Naumburg	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.10

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
NeB:							
Nellis--------------	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.01
NeC:							
Nellis--------------	85	Not limited		Not limited		Somewhat limited	
						Slope	0.37
						Droughty	0.01
NeD:							
Nellis--------------	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	0.01
NgA:							
Niagara-------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
NgB:							
Niagara-------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
NvB:							
Nicholville---------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
OmA:							
Occum---------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Flooding	0.60
OwA:							
Ondawa--------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Flooding	0.60
Pc:							
Pits, Quarry--------	85	Not rated		Not rated		Not rated	
Pd:							
Pits, Sand And Gravel-------------	85	Not rated		Not rated		Not rated	
PfB:							
Pittsfield----------	85	Not limited		Not limited		Not limited	
PfC:							
Pittsfield----------	85	Not limited		Not limited		Somewhat limited	
						Slope	0.37
PfD:							
Pittsfield----------	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
PfE:							
Pittsfield----------	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
PkA:							
Pleasant Lake-------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
PlB:							
Pittsfield, rocky, very stony---------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
Chatfield, rocky, very stony---------	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Depth to bedrock	0.29
PlC:							
Pittsfield, rocky, very stony---------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Slope	0.37
Chatfield, rocky, very stony---------	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Slope	0.37
						Depth to bedrock	0.29
PlD:							
Pittsfield, rocky, very stony---------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Stones or boulders on surface	0.81
Chatfield, rocky, very stony---------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Stones or boulders on surface	0.81
						Depth to bedrock	0.29

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
PlF:							
Pittsfield, rocky, very stony	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
Chatfield, rocky, very stony	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Depth to bedrock	0.29
PoA:							
Podunk	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Flooding	0.60
PrA:							
Pootatuck	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Flooding	0.60
		Too sandy	0.01	Too sandy	0.01	Depth to saturated zone	0.56
						Droughty	0.01
PtB:							
Pyrities	85	Not limited		Not limited		Not limited	
PtC:							
Pyrities	85	Not limited		Not limited		Somewhat limited	
						Slope	0.37
PtD:							
Pyrities	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
PuC:							
Pyrities, very stony	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Slope	0.37
PuD:							
Pyrities, very stony	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Stones or boulders on surface	0.81

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
PwC:							
Pyrities, very stony	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
						Slope	0.37
Nehasne, very stony-	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Depth to bedrock	0.84
						Stones or boulders on surface	0.81
						Droughty	0.44
						Slope	0.37
PwD:							
Pyrities, very stony	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Stones or boulders on surface	0.81
Nehasne, very stony-	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.81	Too steep	1.00
		Stones or boulders on surface	0.81			Depth to bedrock	0.84
						Stones or boulders on surface	0.81
						Droughty	0.44
PyC:							
Pyrities------------	45	Not limited		Not limited		Somewhat limited	
						Slope	0.37
Nehasne-------------	30	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.84
						Droughty	0.44
						Slope	0.37
PyD:							
Pyrities------------	45	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
Nehasne-------------	30	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to bedrock	0.84
						Droughty	0.44

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
RaC:							
Rawsonville, very rocky, very bouldery-----------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
						Slope	0.37
Hogback, very rocky, very bouldery------	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Slope	0.37
RaD:							
Rawsonville, very rocky, very bouldery-----------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.86
Hogback, very rocky, very bouldery------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Stones or boulders on surface	0.91
RaF:							
Rawsonville, very rocky, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.86
Hogback, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
RmA:							
Rippowam	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
RpF:							
Rock Outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
RsA:							
Roundabout	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RuA:							
Rumney	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
RyA:							
Rumney	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
Burnt Vly	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
SeA:							
Searsport	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
SkB:							
Skerry	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Depth to saturated zone	0.35
						Depth to pan	0.01
SnB:							
Sunapee, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to saturated zone	0.12
SpB:							
Sunapee	85	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.12
SrB:							
Skerry, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Depth to saturated zone	0.35
						Depth to pan	0.01
SrC:							
Skerry, very bouldery	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
		Depth to saturated zone	0.04	Depth to saturated zone	0.04	Slope	0.37
						Depth to saturated zone	0.35
						Depth to pan	0.01
StA:							
Stafford	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.20
SuA:							
Sun	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
TaA:							
Tahawus, very bouldery	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
TeA:							
Typic Endoaquolls, very stony	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.81	Stones or boulders on surface	0.81	Stones or boulders on surface	0.81
ToA:							
Tonawanda	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
TuC:							
Tunbridge, very rocky, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
						Slope	0.37
Lyman, very rocky, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
						Slope	0.37
TuD:							
Tunbridge, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Stones or boulders on surface	0.91
						Depth to bedrock	0.71

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
TuD:							
Lyman, very rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.91	Too steep	1.00
		Stones or boulders on surface	0.91			Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
TuF:							
Tunbridge, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Stones or boulders on surface	0.91
						Depth to bedrock	0.71
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.91	Stones or boulders on surface	0.91	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.71
UlC:							
Udorthents	100	Not rated		Not rated		Not rated	
UmF:							
Udorthents, Mine Spoil	100	Not rated		Not rated		Not rated	
VeB:							
Vergennes	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.14	Depth to saturated zone	0.14	Depth to saturated zone	0.52
VeC:							
Vergennes	85	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.52
		Depth to saturated zone	0.14	Depth to saturated zone	0.14	Slope	0.37

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
VeD:							
Vergennes	85	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Too steep	1.00
		Slope	0.50	Depth to saturated zone	0.14	Depth to saturated zone	0.52
		Depth to saturated zone	0.14				
VeE:							
Vergennes	85	Very limited		Very limited		Very limited	
		Slope	1.00	Water erosion	1.00	Too steep	1.00
		Water erosion	1.00	Slope	0.78	Depth to saturated zone	0.52
		Depth to saturated zone	0.14	Depth to saturated zone	0.14		
W:							
Water	100	Not rated		Not rated		Not rated	
WeA:							
Wegatchie	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
WlA:							
Whallonsburg	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
WnA:							
Windsor	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.36	Too sandy	0.36	Droughty	0.99
WnB:							
Windsor	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.36	Too sandy	0.36	Droughty	0.99
WnC:							
Windsor	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.36	Too sandy	0.36	Droughty	0.99
						Slope	0.37
WnD:							
Windsor	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Too sandy	0.36	Too steep	1.00
		Too sandy	0.36			Droughty	0.99
WnE:							
Windsor	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Too sandy	0.36	Too sandy	0.36	Droughty	0.99

Table 12.—Paths and Trails, Off-road Motorcycle Trails, and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WoA:							
Wonsqueak-----------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Organic matter content	1.00
		Organic matter content	1.00	Organic matter content	1.00	Depth to saturated zone	1.00

Table 13.—Dwellings and Small Commercial Buildings

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
10A:							
Pleasant Lake	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
Burnt Vly	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00			Organic matter content	1.00
13A:							
Burnt Vly	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00			Organic matter content	1.00
Rumney	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Pleasant Lake	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
29C:							
Burnt Vly	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00			Organic matter content	1.00
Colton	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.01	Slope	0.01	Slope	1.00
Rumney	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
113A:							
Ondawa	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Rumney	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
123A:							
Lovewell	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
Cornish	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
350B:							
Duxbury, very stony	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
363A:							
Adams	75	Not limited		Not limited		Not limited	
363B:							
Adams	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
363D:							
Adams	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
363F:							
Adams	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
365A:							
Naumburg	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Croghan	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
367A:							
Searsport	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Haplosaprists	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
367A:							
Naumburg	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
375A:							
Colton	45	Not limited		Not limited		Not limited	
Adams	30	Not limited		Not limited		Not limited	
375C:							
Colton	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Adams	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
375D:							
Colton	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
375F:							
Colton	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
649C:							
Monadnock, rocky, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Tunbridge, rocky, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.71
Tahawus, very bouldery	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
650C:							
Monadnock, bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Adams	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Colton	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
650D:							
Monadnock, bouldery	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Colton	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
651D:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
653C:							
Monadnock, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
653D:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
655B:							
Sunapee, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.24
Monadnock, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
657C:							
Monadnock, very bouldery	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Tahawus, very bouldery	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
657D:							
Monadnock, very bouldery	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
657D:							
Tahawus, very bouldery	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
661C:							
Hermon, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
661D:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
661F:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
705B:							
Adirondack, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Tahawus, very bouldery	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
721C:							
Becket, rocky, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.04		
Tunbridge, rocky, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.71
Skerry, rocky, very bouldery	20	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.67
721D:							
Becket, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.99		

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
721D:							
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
721F:							
Becket, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.99		
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
723C:							
Becket, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.04		
723D:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.99		
723F:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.99		
725B:							
Skerry, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.67
Becket, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.04		
727B:							
Skerry, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Depth to saturated zone	0.67

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
727B:							
Adirondack, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
831C:							
Tunbridge, very rocky, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.71
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
831D:							
Tunbridge, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
831F:							
Tunbridge, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
833C:							
Tunbridge, very rocky, very bouldery	40	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.71

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
833C:							
Adirondack, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
851D:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00
851F:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00
881F:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
881F:							
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
930C:							
Mundalite, rocky, very bouldery	40	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.24
Rawsonville, rocky, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.86
Ampersand, rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
931D:							
Mundalite, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Depth to saturated zone	0.24
Rawsonville, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Depth to hard bedrock	0.86
931F:							
Mundalite, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Depth to saturated zone	0.24
Rawsonville, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Depth to hard bedrock	0.86
932C:							
Mundalite, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.24

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
932C:							
Ampersand, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
932D:							
Mundalite, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Depth to saturated zone	0.24
Ampersand, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
934C:							
Ampersand, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
Wilmington, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
941C:							
Rawsonville, very rocky, very bouldery-----------	45	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.86
Hogback, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
941D:							
Rawsonville, very rocky, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Depth to hard bedrock	0.86
Hogback, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
941F:							
Rawsonville, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Depth to hard bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
944D:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00
944F:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00
948F:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
948F:							
Hogback, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
971D:							
Esther, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.03	Depth to saturated zone	1.00	Depth to saturated zone	0.03
Wallface, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.01	Depth to hard bedrock	1.00	Depth to hard bedrock	0.01
975C:							
Andic Cryaquods, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
Esther, very bouldery	35	Somewhat limited		Very limited		Very limited	
		Slope	0.04	Depth to saturated zone	1.00	Slope	1.00
		Depth to saturated zone	0.03	Slope	0.04	Depth to saturated zone	0.03
975D:							
Esther, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.03	Depth to saturated zone	1.00	Depth to saturated zone	0.03
Andic Cryaquods, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
992D:							
Wallface, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.01	Depth to hard bedrock	1.00	Depth to hard bedrock	0.01
Skylight, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
993F:							
Santanoni, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.01	Depth to hard bedrock	1.00	Depth to hard bedrock	0.01
Skylight, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
995D:							
Ricker, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Couchsachraga, very rocky, very bouldery	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00
Skylight, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
995F:							
Ricker, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Couchsachraga, very rocky, very bouldery	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
995F:							
Skylight, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
998F:							
Rock outcrop, very bouldery	30	Not rated		Not rated		Not rated	
Ricker, very bouldery	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Skylight, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
AdA:							
Adams	85	Not limited		Not limited		Not limited	
AdB:							
Adams	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
AdC:							
Adams	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
AdD:							
Adams	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
AdE:							
Adams	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
AkA:							
Adirondack, very bouldery	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
AkB:							
Adirondack, very bouldery	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AmB:							
Amenia	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.12
AmC:							
Amenia	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.98
BcB:							
Becket	85	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.99	Slope	0.12
BcC:							
Becket	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.37		
BeB:							
Becket, very bouldery	85	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.99	Slope	0.12
BeC:							
Becket, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.37		
BeD:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.99		
BeF:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.99		
BkC:							
Becket, rocky, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.37		

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
BkC:							
Tunbridge, rocky, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to hard bedrock	0.71
BkD:							
Becket, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.99		
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
BoB:							
Bombay	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.12
BuA:							
Bucksport	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
BvA:							
Burnt Vly	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00			Organic matter content	1.00
CaA:							
Catden	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
CbA:							
Colton, very bouldery	85	Not limited		Not limited		Not limited	

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CbB:							
Colton, very bouldery	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
CbC:							
Colton, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
CbD:							
Colton, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
CgB:							
Cayuga	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.95	Depth to saturated zone	1.00	Depth to saturated zone	0.95
CgC:							
Cayuga	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.95	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.95
ChB:							
Champlain	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
ChC:							
Champlain	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
ChD:							
Champlain	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
ChE:							
Champlain	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
CkA:							
Charles	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
ClB:							
Charlton	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
ClC:							
Charlton	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
ClD:							
Charlton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
CnC:							
Charlton, rocky, very stony	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
Chatfield, rocky, very stony	30	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.29	Slope	0.37	Depth to hard bedrock	0.29
CnD:							
Charlton, rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Chatfield, rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Depth to hard bedrock	0.29
CoB:							
Chatfield, very rocky, very stony	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Depth to hard bedrock	0.29
						Slope	0.12
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
						Slope	0.12
CoC:							
Chatfield, very rocky, very stony	45	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.29	Slope	0.37	Depth to hard bedrock	0.29
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to hard bedrock	1.00
CoD:							
Chatfield, very rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Depth to hard bedrock	0.29

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
CoD:							
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
CoF:							
Chatfield, very rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Depth to hard bedrock	0.29
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
CpB:							
Churchville	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00			Shrink-swell	1.00
CqA:							
Claverack	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.88	Shrink-swell	1.00	Depth to saturated zone	0.88
CqB:							
Claverack	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.88	Shrink-swell	1.00	Depth to saturated zone	0.88
						Slope	0.12
CrB:							
Collamer	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
		Shrink-swell	0.01			Shrink-swell	0.01
CsA:							
Colton	85	Not limited		Not limited		Not limited	
CsB:							
Colton	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
CsC:							
Colton	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
CsD:							
Colton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
CsE:							
Colton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
CtA:							
Cornish	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
CuA:							
Cosad	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
CuB:							
Cosad	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
						Slope	0.12
CvA:							
Covington	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
CwA:							
Croghan	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
CwB:							
Croghan	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
						Slope	0.12
DeA:							
Deerfield	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.84	Depth to saturated zone	1.00	Depth to saturated zone	0.84
DeB:							
Deerfield	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.84	Depth to saturated zone	1.00	Depth to saturated zone	0.84
						Slope	0.12
DpC:							
Depeyster	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.98
		Shrink-swell	0.01			Shrink-swell	0.01

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
DpD:							
Depeyster	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
		Shrink-swell	0.01			Shrink-swell	0.01
DuC:							
Dunkirk	85	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.78	Shrink-swell	0.78	Slope	1.00
		Slope	0.37	Slope	0.37	Shrink-swell	0.78
DuD:							
Dunkirk	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.78	Shrink-swell	0.78	Shrink-swell	0.78
DuE:							
Dunkirk	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.78	Shrink-swell	0.78	Shrink-swell	0.78
DxB:							
Duxbury	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
ElB:							
Elmridge	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.84	Depth to saturated zone	1.00	Depth to saturated zone	0.84
				Shrink-swell	1.00		
FaD:							
Farmington, very rocky, very stony	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
FcB:							
Factoryville	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Slope	0.12
						Depth to saturated zone	0.01
Colonie, calcareous substratum	30	Not limited		Not limited		Somewhat limited	
						Slope	0.12
FcC:							
Factoryville	45	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Depth to saturated zone	1.00	Slope	1.00
		Depth to saturated zone	0.01	Slope	0.37	Depth to saturated zone	0.01
Colonie, calcareous substratum	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
FcD:							
Factoryville	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Depth to saturated zone	0.01
Colonie, calcareous substratum	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
FdF:							
Factoryville	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Depth to saturated zone	0.01
Dunkirk	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.78	Shrink-swell	0.78	Shrink-swell	0.78
FgB:							
Farmington, very rocky, very stony	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
Galway, very rocky, very stony	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.10	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.10
FkF:							
Farmington, very stony	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
FnB:							
Fernlake, very bouldery	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
FnC:							
Fernlake, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
FnD:							
Fernlake, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
FnF:							
Fernlake, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
FrB:							
Factoryville	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Slope	0.12
						Depth to saturated zone	0.01
FuA:							
Fluvaquents, frequently flooded	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Udifluvents, frequently flooded	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
GeB:							
Georgia	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
						Slope	0.12
GeC:							
Georgia	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.88
GoA:							
Gougeville	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
HaB:							
Hailesboro	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.78			Shrink-swell	0.78
HcB:							
Howard	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones	0.11	Large stones	0.11	Slope	0.12
						Large stones	0.11
HcC:							
Howard	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
		Large stones	0.11	Large stones	0.11	Large stones	0.11
HcD:							
Howard	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones	0.11	Large stones	0.11	Large stones	0.11

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
HdB:							
Hartland	85	Not limited		Not limited		Not limited	
HgB:							
Howard	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
HlB:							
Howard	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
HlC:							
Howard	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
HmB:							
Howard	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
HnC:							
Hermon, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
HnD:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
HrF:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00
HsD:							
Hollis, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
HsF:							
Hollis, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HsF:							
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
KaB:							
Kalurah	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Depth to saturated zone	0.67
						Slope	0.12
KaC:							
Kalurah	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.67
KgB:							
Kalurah, very stony	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Depth to saturated zone	0.67
						Slope	0.12
KgC:							
Kalurah, very stony	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.67
KyA:							
Kingsbury	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
KyB:							
Kingsbury	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
LnA:							
Livingston	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
LvA:							
Lovewell	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
LyD:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
LyD:							
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00
LyF:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00
MaB:							
Malone	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
MbB:							
Malone, very stony	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
McA:							
Massena	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
McB:							
Massena	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
MdA:							
Medomak	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
MhB:							
Monadnock	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MhC:							
Monadnock	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
MkB:							
Monadnock, very bouldery	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
MkC:							
Monadnock, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
MkD:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
MkF:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
MmF:							
Monadnock, bouldery	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Adams	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
MnC:							
Monadnock, rocky, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
Tunbridge, rocky, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to hard bedrock	0.71
MnD:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
MnF:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
MnF:							
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
MoA:							
Mooers	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Depth to saturated zone	0.67
MuC:							
Mundalite, very bouldery	85	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Depth to saturated zone	1.00	Slope	1.00
		Depth to saturated zone	0.24	Slope	0.37	Depth to saturated zone	0.24
MuD:							
Mundalite, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Depth to saturated zone	0.24
MwC:							
Mundalite, rocky, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.24
Rawsonville, rocky, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.86
MwD:							
Mundalite, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Depth to saturated zone	0.24
Rawsonville, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Depth to hard bedrock	0.86
NaA:							
Naumburg	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
NeB:							
Nellis	85	Not limited		Not limited		Somewhat limited Slope	 0.12
NeC:							
Nellis	85	Somewhat limited Slope	 0.37	Somewhat limited Slope	 0.37	Very limited Slope	 1.00
NeD:							
Nellis	85	Very limited Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	 1.00
NgA:							
Niagara	85	Very limited Depth to saturated zone Shrink-swell	 1.00 0.78	Very limited Depth to saturated zone Shrink-swell	 1.00 0.78	Very limited Depth to saturated zone Shrink-swell	 1.00 0.78
NgB:							
Niagara	85	Very limited Depth to saturated zone Shrink-swell	 1.00 0.78	Very limited Depth to saturated zone Shrink-swell	 1.00 0.78	Very limited Depth to saturated zone Shrink-swell	 1.00 0.78
NvB:							
Nicholville	85	Somewhat limited Depth to saturated zone	 0.98	Very limited Depth to saturated zone	 1.00	Somewhat limited Depth to saturated zone	 0.98
OmA:							
Occum	85	Very limited Flooding	 1.00	Very limited Flooding	 1.00	Very limited Flooding	 1.00
OwA:							
Ondawa	85	Very limited Flooding	 1.00	Very limited Flooding	 1.00	Very limited Flooding	 1.00
Pc:							
Pits, quarry	85	Not rated		Not rated		Not rated	
Pd:							
Pits, sand and gravel	85	Not limited		Not limited		Not limited	
PfB:							
Pittsfield	85	Not limited		Not limited		Somewhat limited Slope	 0.12
PfC:							
Pittsfield	85	Somewhat limited Slope	 0.37	Somewhat limited Slope	 0.37	Very limited Slope	 1.00
PfD:							
Pittsfield	85	Very limited Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	 1.00
PfE:							
Pittsfield	85	Very limited Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	 1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
PkA:							
Pleasant Lake	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
PlB:							
Pittsfield, rocky, very stony	45	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Chatfield, rocky, very stony	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Depth to hard bedrock	0.29
						Slope	0.12
PlC:							
Pittsfield, rocky, very stony	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
Chatfield, rocky, very stony	30	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.29	Slope	0.37	Depth to hard bedrock	0.29
PlD:							
Pittsfield, rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Chatfield, rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Depth to hard bedrock	0.29
PlF:							
Pittsfield, rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Chatfield, rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Depth to hard bedrock	0.29
PoA:							
Podunk	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PrA:							
Pootatuck	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
PtB:							
Pyrities	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
PtC:							
Pyrities	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
PtD:							
Pyrities	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
PuC:							
Pyrities, very stony	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
PuD:							
Pyrities, very stony	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
PwC:							
Pyrities, very stony	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
Nehasne, very stony	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.84	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to hard bedrock	0.84
PwD:							
Pyrities, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Nehasne, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.84	Depth to hard bedrock	1.00	Depth to hard bedrock	0.84
PyC:							
Pyrities	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
Nehasne	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.84	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to hard bedrock	0.84
PyD:							
Pyrities	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
PyD:							
Nehasne	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.84	Depth to hard bedrock	1.00	Depth to hard bedrock	0.84
RaC:							
Rawsonville, very rocky, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to hard bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to hard bedrock	1.00
RaD:							
Rawsonville, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Depth to hard bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
RaF:							
Rawsonville, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Depth to hard bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
RmA:							
Rippowam	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RpF:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
RpF:							
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Organic matter content	1.00			Organic matter content	1.00
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
RsA:							
Roundabout	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RuA:							
Rumney	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RyA:							
Rumney	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Burnt Vly	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00			Organic matter content	1.00
SeA:							
Searsport	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
SkB:							
Skerry	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Depth to saturated zone	0.67
						Slope	0.12
SnB:							
Sunapee, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Depth to saturated zone	0.24
						Slope	0.12

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
SpB:							
Sunapee	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.24	Depth to saturated zone	1.00	Depth to saturated zone	0.24
						Slope	0.12
SrB:							
Skerry, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Depth to saturated zone	0.67
						Slope	0.12
SrC:							
Skerry, very bouldery	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.67	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.67
StA:							
Stafford	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
SuA:							
Sun	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
TaA:							
Tahawus, very bouldery	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
TeA:							
Typic Endoaquolls, very stony	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
ToA:							
Tonawanda	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
TuC:							
Tunbridge, very rocky, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to hard bedrock	0.71

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TuC:							
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.37	Slope	0.37	Depth to hard bedrock	1.00
TuD:							
Tunbridge, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
TuF:							
Tunbridge, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
UlC:							
Udorthents	100	Not rated		Not rated		Not rated	
UmF:							
Udorthents, mine spoil	100	Not rated		Not rated		Not rated	
VeB:							
Vergennes	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.84	Shrink-swell	1.00	Depth to saturated zone	0.84
VeC:							
Vergennes	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Slope	1.00
		Depth to saturated zone	0.84	Shrink-swell	1.00	Shrink-swell	1.00
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.84

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
VeD:							
Vergennes	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.84	Shrink-swell	1.00	Depth to saturated zone	0.84
VeE:							
Vergennes	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.84	Shrink-swell	1.00	Depth to saturated zone	0.84
W:							
Water	100	Not rated		Not rated		Not rated	
WeA:							
Wegatchie	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.78			Shrink-swell	0.78
WlA:							
Whallonsburg	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.78	Shrink-swell	0.78	Shrink-swell	0.78
WnA:							
Windsor	85	Not limited		Not limited		Not limited	
WnB:							
Windsor	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
WnC:							
Windsor	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
WnD:							
Windsor	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
WnE:							
Windsor	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
WoA:							
Wonsqueak	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00			Organic matter content	1.00

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
10A:							
Pleasant Lake	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Organic matter content	1.00		
		Frost action	1.00				
Burnt Vly	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00	Organic matter content	1.00		
13A:							
Burnt Vly	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00	Organic matter content	1.00		
Rumney	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
Pleasant Lake	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Organic matter content	1.00		
		Frost action	1.00				
29C:							
Burnt Vly	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00	Organic matter content	1.00		
Colton	30	Somewhat limited		Very limited		Very limited	
		Slope	0.01	Cutbanks cave	1.00	Droughty	1.00
				Slope	0.01	Slope	0.01

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
29C:							
Rumney	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
113A:							
Ondawa	45	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60		
Rumney	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
123A:							
Lovewell	45	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	0.56
		Depth to saturated zone	0.56	Flooding	0.60		
Cornish	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
		Flooding	1.00	Flooding	0.60		
350B:							
Duxbury, very stony	85	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Stones or boulders on surface	0.81
				Slope	0.04	Slope	0.04
363A:							
Adams	75	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.04
363B:							
Adams	75	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Droughty	0.04
				Slope	0.04	Slope	0.04
363D:							
Adams	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.04
363F:							
Adams	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
365A:							
Naumburg	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.10
Croghan	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.28	Depth to saturated zone	1.00	Droughty	0.51
				Cutbanks cave	1.00	Depth to saturated zone	0.28
367A:							
Searsport	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00		
Haplosaprists	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	0.50	Organic matter content	1.00		
Naumburg	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.10
375A:							
Colton	45	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00
Adams	30	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.04
375C:							
Colton	45	Somewhat limited		Very limited		Very limited	
		Slope	0.04	Cutbanks cave	1.00	Droughty	1.00
				Slope	0.04	Slope	0.04
Adams	30	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Droughty	0.04
				Slope	0.04	Slope	0.04
375D:							
Colton	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	1.00
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.04
375F:							
Colton	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	1.00

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
375F:							
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.04
649C:							
Monadnock, rocky, very bouldery	40	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Slope	0.04
Tunbridge, rocky, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
		Slope	0.04	Slope	0.04	Slope	0.04
Tahawus, very bouldery	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Stones or boulders on surface	0.91
650C:							
Monadnock, bouldery	40	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.04
		Slope	0.04	Slope	0.04		
Adams	30	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Droughty	0.04
				Slope	0.04	Slope	0.04
Colton	20	Somewhat limited		Very limited		Very limited	
		Slope	0.04	Cutbanks cave	1.00	Droughty	1.00
				Slope	0.04	Slope	0.04
650D:							
Monadnock, bouldery	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00		
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.04
Colton	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	1.00

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
651D:							
Monadnock, rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
Tunbridge, rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
653C:							
Monadnock, very bouldery-----------	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.37	Slope	0.37	Slope	0.37
653D:							
Monadnock, very bouldery-----------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
655B:							
Sunapee, very bouldery-----------	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.12	Cutbanks cave	1.00	Depth to saturated zone	0.12
		Slope	0.04	Slope	0.04	Slope	0.04
Monadnock, very bouldery-----------	30	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Slope	0.04
657C:							
Monadnock, very bouldery-----------	60	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Slope	0.04	Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
657C:							
Tahawus, very bouldery	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Stones or boulders on surface	0.91
657D:							
Monadnock, very bouldery	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
Tahawus, very bouldery	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Stones or boulders on surface	0.91
661C:							
Hermon, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Slope	0.04	Slope	0.04
						Droughty	0.02
661D:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Stones or boulders on surface	0.91
						Droughty	0.02
661F:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Stones or boulders on surface	0.91
						Droughty	0.02

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
705B:							
Adirondack, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Dense layer	0.50	Depth to pan	0.79
Tahawus, very bouldery	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Stones or boulders on surface	0.91
721C:							
Becket, rocky, very bouldery	40	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50	Slope	0.04
				Slope	0.04		
Tunbridge, rocky, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
		Slope	0.04	Slope	0.04	Slope	0.04
Skerry, rocky, very bouldery	20	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.35	Cutbanks cave	1.00	Depth to saturated zone	0.35
		Slope	0.04	Dense layer	0.50	Slope	0.04
				Slope	0.04	Depth to pan	0.01
721D:							
Becket, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
721D:							
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
721F:							
Becket, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50		
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
723C:							
Becket, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50	Slope	0.04
				Slope	0.04		
723D:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50		
723F:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
725B:							
Skerry, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.35	Cutbanks cave	1.00	Depth to saturated zone	0.35
		Slope	0.04	Dense layer	0.50	Slope	0.04
				Slope	0.04	Depth to pan	0.01
Becket, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50	Slope	0.04
				Slope	0.04		
727B:							
Skerry, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.35	Cutbanks cave	1.00	Depth to saturated zone	0.35
				Dense layer	0.50	Depth to pan	0.01
Adirondack, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Dense layer	0.50	Depth to pan	0.79
831C:							
Tunbridge, very rocky, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
		Slope	0.04	Slope	0.04	Slope	0.04
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.04	Stones or boulders on surface	0.91
		Slope	0.04			Droughty	0.71
						Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
831D:							
Tunbridge, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
						Droughty	0.71
831F:							
Tunbridge, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
						Droughty	0.71
833C:							
Tunbridge, very rocky, very bouldery	40	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
		Slope	0.04	Slope	0.04	Slope	0.04
Adirondack, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Dense layer	0.50	Depth to pan	0.79
				Slope	0.04	Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
833C:							
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.04	Stones or boulders on surface	0.91
		Slope	0.04			Droughty	0.71
						Slope	0.04
851D:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
						Droughty	0.71
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
851F:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
						Droughty	0.71
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
881F:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
881F:							
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
						Droughty	0.71
930C:							
Mundalite, rocky, very bouldery	40	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.12	Cutbanks cave	1.00	Depth to pan	0.71
		Slope	0.04	Dense layer	0.50	Depth to saturated zone	0.12
				Slope	0.04	Slope	0.04
Rawsonville, rocky, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.86
		Slope	0.04	Slope	0.04	Slope	0.04
Ampersand, rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Dense layer	0.50	Depth to pan	0.90
				Slope	0.04	Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
931D:							
Mundalite, rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.12	Cutbanks cave	1.00	Depth to pan	0.71
				Dense layer	0.50	Depth to saturated zone	0.12
Rawsonville, rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.86	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.86
931F:							
Mundalite, rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.12	Cutbanks cave	1.00	Depth to pan	0.71
				Dense layer	0.50	Depth to saturated zone	0.12
Rawsonville, rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.86	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.86
932C:							
Mundalite, very bouldery-----------	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.12	Cutbanks cave	1.00	Depth to pan	0.71
		Slope	0.04	Dense layer	0.50	Depth to saturated zone	0.12
				Slope	0.04	Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
932C:							
Ampersand, very bouldery	30	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Dense layer	0.50	Depth to pan	0.90
				Slope	0.04	Slope	0.04
932D:							
Mundalite, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.12	Cutbanks cave	1.00	Depth to pan	0.71
				Dense layer	0.50	Depth to saturated zone	0.12
Ampersand, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Dense layer	0.50	Depth to pan	0.90
934C:							
Ampersand, very bouldery	45	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Dense layer	0.50	Depth to pan	0.90
Wilmington, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to pan	1.00
		Frost action	1.00	Dense layer	0.50	Depth to saturated zone	1.00
				Cutbanks cave	0.10	Stones or boulders on surface	0.91
941C:							
Rawsonville, very rocky, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.86
		Slope	0.04	Slope	0.04	Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
941C:							
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.04	Stones or boulders on surface	0.91
		Slope	0.04			Slope	0.04
941D:							
Rawsonville, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.86	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
941F:							
Rawsonville, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.86	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.86
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
944D:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
944D:							
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
944F:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
948F:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
Hogback, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
971D:							
Esther, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.02	Cutbanks cave	1.00	Depth to pan	0.20
				Dense layer	0.50	Depth to saturated zone	0.02
Wallface, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Frost action	0.50	Too steep	1.00	Stones or boulders on surface	0.91
		Depth to hard bedrock	0.01	Cutbanks cave	0.10	Depth to bedrock	0.01
975C:							
Andic Cryaquods, very bouldery	45	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Dense layer	0.50	Depth to pan	0.06
				Slope	0.04	Slope	0.04
Esther, very bouldery	35	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Slope	0.04	Cutbanks cave	1.00	Depth to pan	0.20
		Depth to saturated zone	0.02	Dense layer	0.50	Slope	0.04
				Slope	0.04	Depth to saturated zone	0.02
975D:							
Esther, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.02	Cutbanks cave	1.00	Depth to pan	0.20
				Dense layer	0.50	Depth to saturated zone	0.02

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
975D:							
Andic Cryaquods, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Dense layer	0.50	Depth to pan	0.06
992D:							
Wallface, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Frost action	0.50	Too steep	1.00	Stones or boulders on surface	0.91
		Depth to hard bedrock	0.01	Cutbanks cave	0.10	Depth to bedrock	0.01
Skylight, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.02
993F:							
Santanoni, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.01	Too steep	1.00	Stones or boulders on surface	0.91
				Cutbanks cave	1.00	Depth to bedrock	0.01
Skylight, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.02

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
995D:							
Ricker, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.06
Couchsachraga, very rocky, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Too steep	1.00	Too steep	1.00	Too steep	1.00
						Stones or boulders on surface	0.91
						Droughty	0.91
Skylight, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.02
995F:							
Ricker, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.06
Couchsachraga, very rocky, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Too steep	1.00	Too steep	1.00	Too steep	1.00
						Stones or boulders on surface	0.91
						Droughty	0.91

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
995F:							
Skylight, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.02
998F:							
Rock outcrop, very bouldery	30	Not rated		Not rated		Not rated	
Ricker, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.06
Skylight, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Stones or boulders on surface	0.91
						Droughty	0.02
AdA:							
Adams	85	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.04
AdB:							
Adams	85	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.04
AdC:							
Adams	85	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.37	Cutbanks cave	1.00	Slope	0.37
				Slope	0.37	Droughty	0.04
AdD:							
Adams	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.04
AdE:							
Adams	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AkA:							
Adirondack, very bouldery	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Dense layer	0.50	Depth to pan	0.79
AkB:							
Adirondack, very bouldery	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Dense layer	0.50	Depth to pan	0.79
AmB:							
Amenia	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to pan	0.99
		Frost action	0.50	Dense layer	0.50	Depth to saturated zone	0.75
				Cutbanks cave	0.10	Droughty	0.03
AmC:							
Amenia	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to pan	0.99
		Frost action	0.50	Dense layer	0.50	Depth to saturated zone	0.75
		Slope	0.37	Slope	0.37	Slope	0.37
				Cutbanks cave	0.10	Droughty	0.03
BcB:							
Becket	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.20
				Depth to saturated zone	0.99		
				Dense layer	0.50		
BcC:							
Becket	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.37
		Slope	0.37	Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50		
				Slope	0.37		
BeB:							
Becket, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
BeC:							
Becket, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.37	Depth to saturated zone	0.99	Slope	0.37
				Dense layer	0.50	Depth to pan	0.20
				Slope	0.37		
BeD:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50		
BeF:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50		
BkC:							
Becket, rocky, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.37	Depth to saturated zone	0.99	Slope	0.37
				Dense layer	0.50	Depth to pan	0.20
				Slope	0.37		
Tunbridge, rocky, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Slope	0.37	Depth to bedrock	0.71
		Slope	0.37	Cutbanks cave	0.10	Slope	0.37
BkD:							
Becket, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Depth to saturated zone	0.99	Depth to pan	0.20
				Dense layer	0.50		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
BkD:							
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
BoB:							
Bombay	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	0.10	Gravel	0.03
						Large stones	0.01
BuA:							
Bucksport	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Organic matter content	1.00		
		Frost action	1.00				
BvA:							
Burnt Vly	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00	Organic matter content	1.00		
CaA:							
Catden	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Organic matter content	1.00		
		Frost action	1.00				
CbA:							
Colton, very bouldery	85	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00
						Stones or boulders on surface	0.91
CbB:							
Colton, very bouldery	85	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00
						Stones or boulders on surface	0.91

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CbC:							
Colton, very bouldery	85	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Cutbanks cave	1.00	Droughty	1.00
				Slope	0.37	Stones or boulders on surface	0.91
						Slope	0.37
CbD:							
Colton, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	1.00
						Stones or boulders on surface	0.91
CgB:							
Cayuga	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.68	Depth to saturated zone	1.00	Depth to saturated zone	0.68
		Frost action	0.50	Too clayey	0.12		
				Cutbanks cave	0.10		
CgC:							
Cayuga	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.68	Depth to saturated zone	1.00	Depth to saturated zone	0.68
		Frost action	0.50	Slope	0.37	Slope	0.37
		Slope	0.37	Too clayey	0.12		
				Cutbanks cave	0.10		
ChB:							
Champlain	85	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	0.99
ChC:							
Champlain	85	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Cutbanks cave	1.00	Droughty	0.99
				Slope	0.37	Slope	0.37
ChD:							
Champlain	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.99
ChE:							
Champlain	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.99
CkA:							
Charles	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
ClB:							
Charlton------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.10	Large stones	0.01
ClC:							
Charlton------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.37	Slope	0.37	Slope	0.37
				Cutbanks cave	0.10	Large stones	0.01
ClD:							
Charlton------------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10	Large stones	0.01
CnC:							
Charlton, rocky, very stony---------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.37	Slope	0.37	Stones or boulders on surface	0.81
				Cutbanks cave	0.10	Slope	0.37
						Large stones	0.01
Chatfield, rocky, very stony---------	30	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	1.00	Stones or boulders on surface	0.81
		Slope	0.37	Slope	0.37	Slope	0.37
		Depth to hard bedrock	0.29	Cutbanks cave	0.10	Depth to bedrock	0.29
CnD:							
Charlton, rocky, very stony---------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10	Stones or boulders on surface	0.81
						Large stones	0.01
Chatfield, rocky, very stony---------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Frost action	0.50	Too steep	1.00	Stones or boulders on surface	0.81
		Depth to hard bedrock	0.29	Cutbanks cave	0.10	Depth to bedrock	0.29
CoB:							
Chatfield, very rocky, very stony--	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	1.00	Stones or boulders on surface	0.81
		Depth to hard bedrock	0.29	Cutbanks cave	0.10	Depth to bedrock	0.29

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
CoB:							
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50			Droughty	1.00
						Stones or boulders on surface	0.81
CoC:							
Chatfield, very rocky, very stony	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	1.00	Stones or boulders on surface	0.81
		Slope	0.37	Slope	0.37	Slope	0.37
		Depth to hard bedrock	0.29	Cutbanks cave	0.10	Depth to bedrock	0.29
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.37	Droughty	1.00
		Slope	0.37			Stones or boulders on surface	0.81
						Slope	0.37
CoD:							
Chatfield, very rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Frost action	0.50	Too steep	1.00	Stones or boulders on surface	0.81
		Depth to hard bedrock	0.29	Cutbanks cave	0.10	Depth to bedrock	0.29
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Droughty	1.00
						Stones or boulders on surface	0.81
CoF:							
Chatfield, very rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Frost action	0.50	Too steep	1.00	Stones or boulders on surface	0.81
		Depth to hard bedrock	0.29	Cutbanks cave	0.10	Depth to bedrock	0.29

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
CoF:							
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Droughty	1.00
						Stones or boulders on surface	0.81
CpB:							
Churchville	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.84	Depth to pan	0.84
		Shrink-swell	1.00	Dense layer	0.50	Droughty	0.59
		Low strength	1.00	Cutbanks cave	0.10		
CqA:							
Claverack	85	Very limited		Very limited		Somewhat limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Low strength	1.00	Cutbanks cave	1.00	Droughty	0.19
		Depth to saturated zone	0.56	Too clayey	1.00		
		Frost action	0.50				
CqB:							
Claverack	85	Very limited		Very limited		Somewhat limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Low strength	1.00	Cutbanks cave	1.00	Droughty	0.19
		Depth to saturated zone	0.56	Too clayey	1.00		
		Frost action	0.50				
CrB:							
Collamer	85	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Low strength	1.00	Cutbanks cave	0.10		
		Depth to saturated zone	0.56				
		Shrink-swell	0.01				
CsA:							
Colton	85	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00
CsB:							
Colton	85	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00
CsC:							
Colton	85	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Cutbanks cave	1.00	Droughty	1.00
				Slope	0.37	Slope	0.37

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
CsD:							
Colton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	1.00
CsE:							
Colton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	1.00
CtA:							
Cornish	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
		Flooding	1.00	Flooding	0.60		
CuA:							
Cosad	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Cutbanks cave	1.00	Droughty	0.91
		Low strength	1.00	Too clayey	1.00		
		Frost action	0.50				
CuB:							
Cosad	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Cutbanks cave	1.00	Droughty	0.91
		Low strength	1.00	Too clayey	1.00		
		Frost action	0.50				
CvA:							
Covington	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	1.00	Too clayey	1.00
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
CwA:							
Croghan	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.28	Depth to saturated zone	1.00	Droughty	0.51
				Cutbanks cave	1.00	Depth to saturated zone	0.28
CwB:							
Croghan	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.28	Depth to saturated zone	1.00	Droughty	0.51
				Cutbanks cave	1.00	Depth to saturated zone	0.28
DeA:							
Deerfield	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.52	Depth to saturated zone	1.00	Droughty	0.99
				Cutbanks cave	1.00	Depth to saturated zone	0.52

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DeB:							
Deerfield-----------	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.52	Depth to saturated zone	1.00	Droughty	0.99
				Cutbanks cave	1.00	Depth to saturated zone	0.52
DpC:							
Depeyster-----------	85	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Slope	0.37	Slope	0.37
		Slope	0.37	Cutbanks cave	0.10		
		Shrink-swell	0.01				
DpD:							
Depeyster-----------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
		Shrink-swell	0.01				
DuC:							
Dunkirk-------------	85	Very limited		Somewhat limited		Somewhat limited	
		Frost action	1.00	Slope	0.37	Slope	0.37
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.78				
		Slope	0.37				
DuD:							
Dunkirk-------------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
		Shrink-swell	0.78				
DuE:							
Dunkirk-------------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
		Shrink-swell	0.78				
DxB:							
Duxbury-------------	85	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
ElB:							
Elmridge------------	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.52	Depth to saturated zone	1.00	Depth to saturated zone	0.52
		Frost action	0.50	Too clayey	0.12		
				Cutbanks cave	0.10		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
FaD:							
Farmington, very rocky, very stony	85	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
						Stones or boulders on surface	0.81
FcB:							
Factoryville	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Droughty	0.46
				Cutbanks cave	1.00	Depth to saturated zone	0.01
Colonie, calcareous substratum	30	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.87
FcC:							
Factoryville	45	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.37	Depth to saturated zone	1.00	Droughty	0.46
		Depth to saturated zone	0.01	Cutbanks cave	1.00	Slope	0.37
				Slope	0.37	Depth to saturated zone	0.01
Colonie, calcareous substratum	30	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.37	Cutbanks cave	1.00	Droughty	0.87
				Slope	0.37	Slope	0.37
FcD:							
Factoryville	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Droughty	0.46
				Cutbanks cave	1.00	Depth to saturated zone	0.01
Colonie, calcareous substratum	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.87
FdF:							
Factoryville	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Droughty	0.46
				Cutbanks cave	1.00	Depth to saturated zone	0.01

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
FdF:							
Dunkirk	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
		Shrink-swell	0.78				
FgB:							
Farmington, very rocky, very stony	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.81
						Slope	0.04
Galway, very rocky, very stony	30	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	1.00	Stones or boulders on surface	0.81
		Depth to hard bedrock	0.10	Cutbanks cave	0.10	Depth to bedrock	0.10
		Slope	0.04	Slope	0.04	Droughty	0.07
						Slope	0.04
FkF:							
Farmington, very stony	60	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
						Stones or boulders on surface	0.81
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
FnB:							
Fernlake, very bouldery	85	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Stones or boulders on surface	0.91
						Droughty	0.01
FnC:							
Fernlake, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.37	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Slope	0.37	Slope	0.37
						Droughty	0.01

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
FnD:							
Fernlake, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Stones or boulders on surface	0.91
						Droughty	0.01
FnF:							
Fernlake, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Stones or boulders on surface	0.91
						Droughty	0.01
FrB:							
Factoryville	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Droughty	0.46
				Cutbanks cave	1.00	Depth to saturated zone	0.01
FuA:							
Fluvaquents, frequently flooded	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
Udifluvents, frequently flooded	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	1.00
		Frost action	0.50	Flooding	0.80		
GeB:							
Georgia	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Frost action	0.50	Cutbanks cave	0.10		
GeC:							
Georgia	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Frost action	0.50	Slope	0.37	Slope	0.37
		Slope	0.37	Cutbanks cave	0.10		
GoA:							
Gougeville	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.28

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
HaB:							
Hailesboro	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
		Shrink-swell	0.78				
HcB:							
Howard	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.71
		Large stones	0.11	Large stones	0.11		
HcC:							
Howard	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.71
		Slope	0.37	Slope	0.37	Slope	0.37
		Large stones	0.11	Large stones	0.11		
HcD:							
Howard	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.71
		Large stones	0.11	Large stones	0.11		
HdB:							
Hartland	85	Very limited		Somewhat limited		Not limited	
		Frost action	1.00	Cutbanks cave	0.10		
HgB:							
Howard	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.71
HlB:							
Howard	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.17
HlC:							
Howard	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.37
		Slope	0.37	Slope	0.37	Droughty	0.17
HmB:							
Howard	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.17
HnC:							
Hermon, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.37	Cutbanks cave	1.00	Stones or boulders on surface	0.91
				Slope	0.37	Slope	0.37
						Droughty	0.02

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
HnD:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Stones or boulders on surface	0.91
						Droughty	0.02
HrF:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
HsD:							
Hollis, very stony	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Droughty	1.00
						Stones or boulders on surface	0.81
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
HsF:							
Hollis, very stony	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Droughty	1.00
						Stones or boulders on surface	0.81
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KaB:							
Kalurah	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.35
		Depth to saturated zone	0.35	Cutbanks cave	0.10		
KaC:							
Kalurah	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Slope	0.37
		Slope	0.37	Slope	0.37	Depth to saturated zone	0.35
		Depth to saturated zone	0.35	Cutbanks cave	0.10		
KgB:							
Kalurah, very stony	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.81
		Depth to saturated zone	0.35	Cutbanks cave	0.10	Depth to saturated zone	0.35
KgC:							
Kalurah, very stony	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.81
		Slope	0.37	Slope	0.37	Slope	0.37
		Depth to saturated zone	0.35	Cutbanks cave	0.10	Depth to saturated zone	0.35
KyA:							
Kingsbury	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
KyB:							
Kingsbury	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
LnA:							
Livingston	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Low strength	1.00				

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
LvA:							
Lovewell------------	85	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	0.56
		Depth to saturated zone	0.56	Flooding	0.60		
LyD:							
Lyman, very rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
						Droughty	0.71
Knob Lock, very rocky, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
LyF:							
Lyman, very rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
						Droughty	0.71
Knob Lock, very rocky, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
MaB:							
Malone--------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Dense layer	0.50	Depth to pan	0.84
				Cutbanks cave	0.10	Droughty	0.01

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
MbB:							
Malone, very stony	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Dense layer	0.50	Depth to pan	0.84
				Cutbanks cave	0.10	Stones or boulders on surface	0.81
						Droughty	0.01
McA:							
Massena	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10	Large stones	0.01
McB:							
Massena	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10	Large stones	0.01
MdA:							
Medomak	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Organic matter content	1.00		
				Flooding	0.80		
MhB:							
Monadnock	85	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
MhC:							
Monadnock	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.37
		Slope	0.37	Slope	0.37		
MkB:							
Monadnock, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
MkC:							
Monadnock, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.37	Slope	0.37	Slope	0.37

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
MkD:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
MkF:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
MmF:							
Monadnock, bouldery	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00		
Adams	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.04
MnC:							
Monadnock, rocky, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
		Slope	0.37	Slope	0.37	Slope	0.37
Tunbridge, rocky, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Slope	0.37	Depth to bedrock	0.71
		Slope	0.37	Cutbanks cave	0.10	Slope	0.37
MnD:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
MnF:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.91
Tunbridge, rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
MoA:							
Mooers	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.35	Depth to saturated zone	1.00	Droughty	0.70
				Cutbanks cave	1.00	Depth to saturated zone	0.35
MuC:							
Mundalite, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Slope	0.37	Cutbanks cave	1.00	Depth to pan	0.71
		Depth to saturated zone	0.12	Dense layer	0.50	Slope	0.37
				Slope	0.37	Depth to saturated zone	0.12
MuD:							
Mundalite, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.12	Cutbanks cave	1.00	Depth to pan	0.71
				Dense layer	0.50	Depth to saturated zone	0.12
MwC:							
Mundalite, rocky, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.12	Cutbanks cave	1.00	Depth to pan	0.71
		Slope	0.04	Dense layer	0.50	Depth to saturated zone	0.12
				Slope	0.04	Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
MwC:							
Rawsonville, rocky, very bouldery------	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.86
		Slope	0.04	Slope	0.04	Slope	0.04
MwD:							
Mundalite, rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.12	Cutbanks cave	1.00	Depth to pan	0.71
				Dense layer	0.50	Depth to saturated zone	0.12
Rawsonville, rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.86	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.86
NaA:							
Naumburg------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.10
NeB:							
Nellis--------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.01
NeC:							
Nellis--------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.37	Slope	0.37
		Slope	0.37	Cutbanks cave	0.10	Droughty	0.01
NeD:							
Nellis--------------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.01
NgA:							
Niagara-------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
		Shrink-swell	0.78				

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
NgB:							
Niagara	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
		Shrink-swell	0.78				
NvB:							
Nicholville	85	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
OmA:							
Occum	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Flooding	0.60	Flooding	0.60
		Frost action	0.50	Cutbanks cave	0.10		
OwA:							
Ondawa	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60		
Pc:							
Pits, quarry	85	Not rated		Not rated		Not rated	
Pd:							
Pits, sand and gravel	85	Not rated		Not rated		Not rated	
PfB:							
Pittsfield	85	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
PfC:							
Pittsfield	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.37	Slope	0.37
		Slope	0.37	Cutbanks cave	0.10		
PfD:							
Pittsfield	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10		
PfE:							
Pittsfield	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10		
PkA:							
Pleasant Lake	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Organic matter content	1.00		
		Frost action	1.00				

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
PlB:							
Pittsfield, rocky, very stony	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.81
Chatfield, rocky, very stony	30	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	1.00	Stones or boulders on surface	0.81
		Depth to hard bedrock	0.29	Cutbanks cave	0.10	Depth to bedrock	0.29
PlC:							
Pittsfield, rocky, very stony	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.37	Stones or boulders on surface	0.81
		Slope	0.37	Cutbanks cave	0.10	Slope	0.37
Chatfield, rocky, very stony	30	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	1.00	Stones or boulders on surface	0.81
		Slope	0.37	Slope	0.37	Slope	0.37
		Depth to hard bedrock	0.29	Cutbanks cave	0.10	Depth to bedrock	0.29
PlD:							
Pittsfield, rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.81
Chatfield, rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Frost action	0.50	Too steep	1.00	Stones or boulders on surface	0.81
		Depth to hard bedrock	0.29	Cutbanks cave	0.10	Depth to bedrock	0.29
PlF:							
Pittsfield, rocky, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.81

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
PlF:							
Chatfield, rocky, very stony	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Frost action	0.50	Too steep	1.00	Stones or boulders on surface	0.81
		Depth to hard bedrock	0.29	Cutbanks cave	0.10	Depth to bedrock	0.29
PoA:							
Podunk	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60		
PrA:							
Pootatuck	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	0.56	Cutbanks cave	1.00	Depth to saturated zone	0.56
		Frost action	0.50	Flooding	0.60	Droughty	0.01
PtB:							
Pyrities	85	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
PtC:							
Pyrities	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.37	Slope	0.37
		Slope	0.37	Cutbanks cave	0.10		
PtD:							
Pyrities	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10		
PuC:							
Pyrities, very stony	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.37	Stones or boulders on surface	0.81
		Slope	0.37	Cutbanks cave	0.10	Slope	0.37
PuD:							
Pyrities, very stony	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.81
PwC:							
Pyrities, very stony	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.37	Stones or boulders on surface	0.81
		Slope	0.37	Cutbanks cave	0.10	Slope	0.37

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PwC:							
Nehasne, very stony-	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.84	Depth to hard bedrock	1.00	Depth to bedrock	0.84
		Frost action	0.50	Slope	0.37	Stones or boulders on surface	0.81
		Slope	0.37	Cutbanks cave	0.10	Droughty	0.44
						Slope	0.37
PwD:							
Pyrities, very stony	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.81
Nehasne, very stony-	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.84	Too steep	1.00	Depth to bedrock	0.84
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.81
						Droughty	0.44
PyC:							
Pyrities------------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.37	Slope	0.37
		Slope	0.37	Cutbanks cave	0.10		
Nehasne-------------	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.84	Depth to hard bedrock	1.00	Depth to bedrock	0.84
		Frost action	0.50	Slope	0.37	Droughty	0.44
		Slope	0.37	Cutbanks cave	0.10	Slope	0.37
PyD:							
Pyrities------------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10		
Nehasne-------------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.84	Too steep	1.00	Depth to bedrock	0.84
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.44
RaC:							
Rawsonville, very rocky, very bouldery-----------	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.86	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Slope	0.37	Depth to bedrock	0.86
		Slope	0.37	Cutbanks cave	0.10	Slope	0.37

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
RaC:							
Hogback, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.37	Stones or boulders on surface	0.91
		Slope	0.37			Slope	0.37
RaD:							
Rawsonville, very rocky, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.86	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.86
Hogback, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
RaF:							
Rawsonville, very rocky, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.86	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.86
Hogback, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
RmA:							
Rippowam------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
RpF:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Too acid	1.00
						Stones or boulders on surface	0.91
						Droughty	0.54
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
						Droughty	0.71
RsA:							
Roundabout	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
RuA:							
Rumney	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
RyA:							
Rumney	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
Burnt Vly	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00	Organic matter content	1.00		
SeA:							
Searsport	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
SkB:							
Skerry	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.35
		Depth to saturated zone	0.35	Cutbanks cave	1.00	Depth to pan	0.01
				Dense layer	0.50		
SnB:							
Sunapee, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.12	Cutbanks cave	1.00	Depth to saturated zone	0.12
SpB:							
Sunapee	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.12
		Depth to saturated zone	0.12	Cutbanks cave	1.00		
SrB:							
Skerry, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Depth to saturated zone	0.35	Cutbanks cave	1.00	Depth to saturated zone	0.35
				Dense layer	0.50	Depth to pan	0.01
SrC:							
Skerry, very bouldery	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Stones or boulders on surface	0.91
		Slope	0.37	Cutbanks cave	1.00	Slope	0.37
		Depth to saturated zone	0.35	Dense layer	0.50	Depth to saturated zone	0.35
				Slope	0.37	Depth to pan	0.01
StA:							
Stafford	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.20
SuA:							
Sun	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Dense layer	0.50		
				Cutbanks cave	0.10		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TaA:							
Tahawus, very bouldery	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Stones or boulders on surface	0.91
TeA:							
Typic Endoaquolls, very stony	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Dense layer	0.50	Stones or boulders on surface	0.81
				Cutbanks cave	0.10		
ToA:							
Tonawanda	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
TuC:							
Tunbridge, very rocky, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Slope	0.37	Depth to bedrock	0.71
		Slope	0.37	Cutbanks cave	0.10	Slope	0.37
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.37	Stones or boulders on surface	0.91
		Slope	0.37			Droughty	0.71
						Slope	0.37
TuD:							
Tunbridge, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TuD:							
Lyman, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
						Droughty	0.71
TuF:							
Tunbridge, very rocky, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Stones or boulders on surface	0.91
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.71
Lyman, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.91
						Droughty	0.71
UlC:							
Udorthents----------	100	Not rated		Not rated		Not rated	
UmF:							
Udorthents, mine spoil--------------	100	Not rated		Not rated		Not rated	
VeB:							
Vergennes-----------	85	Very limited		Very limited		Somewhat limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.52
		Low strength	1.00	Too clayey	1.00		
		Depth to saturated zone	0.52	Cutbanks cave	0.10		
		Frost action	0.50				
VeC:							
Vergennes-----------	85	Very limited		Very limited		Somewhat limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.52
		Low strength	1.00	Too clayey	1.00	Slope	0.37
		Depth to saturated zone	0.52	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
		Slope	0.37				

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
VeD:							
Vergennes	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.52
		Low strength	1.00	Too clayey	1.00		
		Depth to saturated zone	0.52	Cutbanks cave	0.10		
		Frost action	0.50				
VeE:							
Vergennes	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.52
		Low strength	1.00	Too clayey	1.00		
		Depth to saturated zone	0.52	Cutbanks cave	0.10		
		Frost action	0.50				
W:							
Water	100	Not rated		Not rated		Not rated	
WeA:							
Wegatchie	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
		Shrink-swell	0.78				
WlA:							
Whallonsburg	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Organic matter content	1.00		
		Frost action	1.00	Cutbanks cave	0.10		
		Low strength	1.00				
WnA:							
Windsor	85	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	0.99
WnB:							
Windsor	85	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	0.99
WnC:							
Windsor	85	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Cutbanks cave	1.00	Droughty	0.99
				Slope	0.37	Slope	0.37
WnD:							
Windsor	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.99

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WnE:							
Windsor	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.99
WoA:							
Wonsqueak	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Organic matter content	1.00
		Subsidence	1.00	Organic matter content	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		

Table 15.—Septic Tank Absorption Fields

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Septic tank absorption fields: Value
10A:			
Pleasant Lake	45	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Restricted permeability	0.60
Burnt Vly	30	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.52
13A:			
Burnt Vly	40	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.52
Rumney	30	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
Pleasant Lake	20	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Restricted permeability	0.60
29C:			
Burnt Vly	40	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.52
Colton	30	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
29C:			
Rumney	20	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
113A:			
Ondawa	45	Very limited	
		Flooding	1.00
		Seepage	0.90
Rumney	30	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
123A:			
Lovewell	45	Very limited	
		Flooding	1.00
		Seepage	0.90
		Depth to saturated zone	0.80
		Restricted permeability	0.31
Cornish	30	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Restricted permeability	0.19
350B:			
Duxbury, very stony	85	Somewhat limited	
		Seepage	0.90
		Surface rock fragments	0.30
		Slope	0.20
363A:			
Adams	75	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
363B:			
Adams	75	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
363D:			
Adams	75	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
363F:			
Adams	75	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00
365A:			
Naumburg	45	Very limited	
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
Croghan	30	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.80
367A:			
Searsport	40	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
Haplosaprists	30	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.60
Naumburg	20	Very limited	
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
375A:			
Colton	45	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
Adams	30	Very limited	
		Filtering capacity	1.00
		Seepage	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
375C:			
Colton	45	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
Adams	30	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
375D:			
Colton	45	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
Adams	30	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00
375F:			
Colton	45	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
Adams	30	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00
649C:			
Monadnock, rocky, very bouldery	40	Somewhat limited	
		Seepage	0.90
		Surface rock fragments	0.30
		Slope	0.20
Tunbridge, rocky, very bouldery	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
Tahawus, very bouldery	20	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
650C:			
Monadnock, bouldery	40	Somewhat limited	
		Seepage	0.90
		Slope	0.20
Adams	30	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
Colton	20	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
650D:			
Monadnock, bouldery	40	Very limited	
		Slope	1.00
		Seepage	0.90
Adams	30	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00
Colton	20	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
651D:			
Monadnock, rocky, very bouldery	45	Very limited	
		Slope	1.00
		Seepage	0.90
		Surface rock fragments	0.30
Tunbridge, rocky, very bouldery	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
653C:			
Monadnock, very bouldery	85	Somewhat limited	
		Seepage	0.90
		Surface rock fragments	0.30
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
653D:			
Monadnock, very bouldery	85	Very limited	
		Slope	1.00
		Seepage	0.90
		Surface rock fragments	0.30
655B:			
Sunapee, very bouldery	45	Somewhat limited	
		Seepage	0.90
		Depth to saturated zone	0.80
		Surface rock fragments	0.60
		Slope	0.20
Monadnock, very bouldery	30	Somewhat limited	
		Seepage	0.90
		Surface rock fragments	0.30
		Slope	0.20
657C:			
Monadnock, very bouldery	60	Somewhat limited	
		Seepage	0.90
		Surface rock fragments	0.30
		Slope	0.20
Tahawus, very bouldery	30	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Surface rock fragments	0.60
657D:			
Monadnock, very bouldery	60	Very limited	
		Slope	1.00
		Seepage	0.90
		Surface rock fragments	0.30
Tahawus, very bouldery	30	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
661C:			
Hermon, very bouldery	85	Very limited	
		Seepage	1.00
		Filtering capacity	1.00
		Surface rock fragments	0.30
		Slope	0.20
661D:			
Hermon, very bouldery	85	Very limited	
		Slope	1.00
		Seepage	1.00
		Filtering capacity	1.00
		Surface rock fragments	0.30
661F:			
Hermon, very bouldery	85	Very limited	
		Slope	1.00
		Seepage	1.00
		Filtering capacity	1.00
		Surface rock fragments	0.30
705B:			
Adirondack, very bouldery	40	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
Tahawus, very bouldery	35	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Surface rock fragments	0.60
721C:			
Becket, rocky, very bouldery	40	Somewhat limited	
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
721C:			
Tunbridge, rocky, very bouldery------	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
Skerry, rocky, very bouldery-----------	20	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Slope	0.20
721D:			
Becket, rocky, very bouldery-----------	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
Tunbridge, rocky, very bouldery------	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
721F:			
Becket, rocky, very bouldery-----------	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
Tunbridge, rocky, very bouldery------	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
723C:			
Becket, very bouldery	85	Somewhat limited	
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
		Slope	0.20
723D:			
Becket, very bouldery	85	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
723F:			
Becket, very bouldery	85	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
725B:			
Skerry, very bouldery	45	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Slope	0.20
Becket, very bouldery	30	Somewhat limited	
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
727B:			
Skerry, very bouldery	45	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
Adirondack, very bouldery	30	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
831C:			
Tunbridge, very rocky, very bouldery	45	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
Lyman, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Slope	0.20
831D:			
Tunbridge, very rocky, very bouldery	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Lyman, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
831F:			
Tunbridge, very rocky, very bouldery	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
831F:			
Lyman, very rocky, very bouldery------	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
833C:			
Tunbridge, very rocky, very bouldery-----------	40	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
Adirondack, very rocky, very bouldery-----------	30	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Lyman, very rocky, very bouldery------	20	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Slope	0.20
851D:			
Lyman, very rocky, very bouldery------	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Knob Lock, very rocky, very bouldery-----------	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
851F:			
Lyman, very rocky, very bouldery------	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
851F:			
Knob Lock, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
881F:			
Rock outcrop, very bouldery	40	Not rated	
Knob Lock, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Lyman, very rocky, very bouldery	20	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
930C:			
Mundalite, rocky, very bouldery	40	Somewhat limited	
		Surface rock fragments	0.60
		Depth to dense material	0.31
		Depth to saturated zone	0.31
		Restricted permeability	0.31
		Slope	0.20
Rawsonville, rocky, very bouldery	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
Ampersand, rocky, very bouldery	20	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
931D:			
Mundalite, rocky, very bouldery	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to dense material	0.31
		Depth to saturated zone	0.31
		Restricted permeability	0.31
Rawsonville, rocky, very bouldery	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
931F:			
Mundalite, rocky, very bouldery	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to dense material	0.31
		Depth to saturated zone	0.31
		Restricted permeability	0.31
Rawsonville, rocky, very bouldery	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
932C:			
Mundalite, very bouldery	45	Somewhat limited	
		Surface rock fragments	0.60
		Depth to dense material	0.31
		Depth to saturated zone	0.31
		Restricted permeability	0.31
		Slope	0.20
Ampersand, very bouldery	30	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
932D:			
Mundalite, very bouldery	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to dense material	0.31
		Depth to saturated zone	0.31
		Restricted permeability	0.31
Ampersand, very bouldery	30	Very limited	
		Depth to saturated zone	1.00
		Slope	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
934C:			
Ampersand, very bouldery	45	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Slope	0.20
Wilmington, very bouldery	30	Very limited	
		Depth to dense material	1.00
		Depth to saturated zone	1.00
		Surface rock fragments	0.60
		Slope	0.06
941C:			
Rawsonville, very rocky, very bouldery	45	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
Hogback, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
941D:			
Rawsonville, very rocky, very bouldery	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Hogback, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
941F:			
Rawsonville, very rocky, very bouldery	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Hogback, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
944D:			
Hogback, very rocky, very bouldery	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Knob Lock, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
944F:			
Hogback, very rocky, very bouldery	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Knob Lock, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
948F:			
Rock outcrop, very bouldery	40	Not rated	
Knob Lock, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Hogback, very bouldery	20	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
971D:			
Esther, rocky, very bouldery	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
		Restricted permeability	0.05
Wallface, rocky, very bouldery	30	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to bedrock	0.30
975C:			
Andic Cryaquods, very bouldery	45	Very limited	
		Depth to saturated zone	1.00
		Surface rock fragments	0.60
		Depth to dense material	0.30
		Slope	0.20
Esther, very bouldery	35	Somewhat limited	
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
		Slope	0.20
		Restricted permeability	0.05

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
975D:			
Esther, very bouldery	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
		Restricted permeability	0.05
Andic Cryaquods, very bouldery	35	Very limited	
		Depth to saturated zone	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Depth to dense material	0.30
992D:			
Wallface, very rocky, very bouldery	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to bedrock	0.30
Skylight, very rocky, very bouldery	30	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
		Depth to bedrock	0.95
		Surface rock fragments	0.60
993F:			
Santanoni, very rocky, very bouldery	45	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
		Depth to bedrock	0.71
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
993F:			
Skylight, very rocky, very bouldery-----------	30	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
		Depth to bedrock	0.95
		Surface rock fragments	0.60
995D:			
Ricker, very rocky, very bouldery------	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Couchsachraga, very rocky, very bouldery-----------	25	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Seepage	0.90
		Surface rock fragments	0.60
Skylight, very rocky, very bouldery-----------	20	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
		Depth to bedrock	0.95
		Surface rock fragments	0.60
995F:			
Ricker, very rocky, very bouldery------	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Couchsachraga, very rocky, very bouldery-----------	25	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Seepage	0.90
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
995F:			
Skylight, very rocky, very bouldery	20	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
		Depth to bedrock	0.95
		Surface rock fragments	0.60
998F:			
Rock outcrop, very bouldery	30	Not rated	
Ricker, very bouldery	25	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Skylight, very bouldery	20	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
		Depth to bedrock	0.95
		Surface rock fragments	0.60
AdA:			
Adams	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
AdB:			
Adams	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
AdC:			
Adams	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
AdD:			
Adams	85	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
AdE:			
Adams	85	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00
AkA:			
Adirondack, very bouldery	85	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
AkB:			
Adirondack, very bouldery	85	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
AmB:			
Amenia	85	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
AmC:			
Amenia	85	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Slope	0.20
BcB:			
Becket	85	Somewhat limited	
		Depth to saturated zone	0.33
		Depth to dense material	0.30
BcC:			
Becket	85	Somewhat limited	
		Depth to saturated zone	0.33
		Depth to dense material	0.30
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
BeB:			
Becket, very bouldery	85	Somewhat limited	
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
BeC:			
Becket, very bouldery	85	Somewhat limited	
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
		Slope	0.20
BeD:			
Becket, very bouldery	85	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
BeF:			
Becket, very bouldery	85	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
BkC:			
Becket, rocky, very bouldery	45	Somewhat limited	
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
		Slope	0.20
Tunbridge, rocky, very bouldery	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
BkD:			
Becket, rocky, very bouldery	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Depth to dense material	0.30
Tunbridge, rocky, very bouldery	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
BoB:			
Bombay	85	Somewhat limited	
		Depth to saturated zone	0.80
		Restricted permeability	0.14
BuA:			
Bucksport	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
BvA:			
Burnt Vly	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.52
CaA:			
Catden	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.60
CbA:			
Colton, very bouldery	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Surface rock fragments	0.30

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
CbB:			
Colton, very bouldery	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Surface rock fragments	0.30
CbC:			
Colton, very bouldery	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Surface rock fragments	0.30
		Slope	0.20
CbD:			
Colton, very bouldery	85	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
		Surface rock fragments	0.30
CgB:			
Cayuga	85	Somewhat limited	
		Restricted permeability	0.99
		Depth to saturated zone	0.80
CgC:			
Cayuga	85	Somewhat limited	
		Restricted permeability	0.99
		Depth to saturated zone	0.80
		Slope	0.20
ChB:			
Champlain	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
ChC:			
Champlain	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
ChD:			
Champlain	85	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
ChE:			
Champlain	85	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
CkA:			
Charles	85	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
ClB:			
Charlton	85	Not limited	
ClC:			
Charlton	85	Somewhat limited	
		Slope	0.20
ClD:			
Charlton	85	Very limited	
		Slope	1.00
CnC:			
Charlton, rocky, very stony	45	Somewhat limited	
		Surface rock fragments	0.30
		Slope	0.20
Chatfield, rocky, very stony	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
CnD:			
Charlton, rocky, very stony	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.30
Chatfield, rocky, very stony	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
CoB:			
Chatfield, very rocky, very stony	45	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Hollis, very rocky, very stony	30	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
CoC:			
Chatfield, very rocky, very stony	45	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
Hollis, very rocky, very stony	30	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Slope	0.20
CoD:			
Chatfield, very rocky, very stony	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Hollis, very rocky, very stony	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
CoF:			
Chatfield, very rocky, very stony	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Hollis, very rocky, very stony	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
CpB:			
Churchville	85	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.99
		Depth to dense material	0.75
CqA:			
Claverack	85	Very limited	
		Filtering capacity	1.00
		Depth to saturated zone	0.80
		Depth to dense material	0.75
CqB:			
Claverack	85	Very limited	
		Filtering capacity	1.00
		Depth to saturated zone	0.80
		Depth to dense material	0.75
CrB:			
Collamer	85	Somewhat limited	
		Restricted permeability	0.97
		Depth to saturated zone	0.80
CsA:			
Colton	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
CsB:			
Colton	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
CsC:			
Colton	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
CsD:			
Colton	85	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
CsE:			
Colton	85	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
CtA:			
Cornish	85	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Restricted permeability	0.19
CuA:			
Cosad	85	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.80
		Restricted permeability	0.31
CuB:			
Cosad	85	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.80
		Restricted permeability	0.31
CvA:			
Covington	85	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	1.00
CwA:			
Croghan	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.80
CwB:			
Croghan	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.80

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
DeA:			
Deerfield-----------	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.80
DeB:			
Deerfield-----------	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.80
DpC:			
Depeyster-----------	85	Somewhat limited	
		Depth to saturated zone	0.80
		Restricted permeability	0.60
		Slope	0.20
DpD:			
Depeyster-----------	85	Very limited	
		Slope	1.00
		Depth to saturated zone	0.80
		Restricted permeability	0.60
DuC:			
Dunkirk-------------	85	Somewhat limited	
		Restricted permeability	0.71
		Slope	0.20
DuD:			
Dunkirk-------------	85	Very limited	
		Slope	1.00
		Restricted permeability	0.71
DuE:			
Dunkirk-------------	85	Very limited	
		Slope	1.00
		Restricted permeability	0.71
DxB:			
Duxbury-------------	85	Somewhat limited	
		Seepage	0.90
ElB:			
Elmridge------------	85	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.80

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
FaD:			
Farmington, very rocky, very stony	85	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
FcB:			
Factoryville	45	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.33
Colonie, calcareous substratum	30	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
FcC:			
Factoryville	45	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.33
		Slope	0.20
Colonie, calcareous substratum	30	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
FcD:			
Factoryville	45	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
		Depth to saturated zone	0.33
Colonie, calcareous substratum	30	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00
FdF:			
Factoryville	45	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
		Depth to saturated zone	0.33

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
FdF:			
Dunkirk	30	Very limited	
		Slope	1.00
		Restricted permeability	0.71
FgB:			
Farmington, very rocky, very stony	45	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Slope	0.20
Galway, very rocky, very stony	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
FkF:			
Farmington, very stony	60	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Rock outcrop, very stony	30	Not rated	
FnB:			
Fernlake, very bouldery	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Surface rock fragments	0.30
FnC:			
Fernlake, very bouldery	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Surface rock fragments	0.30
		Slope	0.20
FnD:			
Fernlake, very bouldery	85	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00
		Surface rock fragments	0.30

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
FnF:			
Fernlake, very bouldery	85	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00
		Surface rock fragments	0.30
FrB:			
Factoryville	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.33
FuA:			
Fluvaquents, frequently flooded	45	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
Udifluvents, frequently flooded	30	Very limited	
		Flooding	1.00
		Seepage	0.90
GeB:			
Georgia	85	Somewhat limited	
		Depth to saturated zone	0.80
GeC:			
Georgia	85	Somewhat limited	
		Depth to saturated zone	0.80
		Slope	0.20
GoA:			
Gougeville	85	Very limited	
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
HaB:			
Hailesboro	85	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.67
HcB:			
Howard	85	Somewhat limited	
		Seepage	0.90
		Content of large stones	0.14

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
HcC:			
Howard	85	Somewhat limited	
		Seepage	0.90
		Slope	0.20
		Content of large stones	0.14
HcD:			
Howard	85	Very limited	
		Slope	1.00
		Seepage	0.90
		Content of large stones	0.14
HdB:			
Hartland	85	Not limited	
HgB:			
Howard	85	Somewhat limited	
		Seepage	0.90
HlB:			
Howard	85	Not limited	
HlC:			
Howard	85	Somewhat limited	
		Slope	0.20
HmB:			
Howard	85	Not limited	
HnC:			
Hermon, very bouldery	85	Very limited	
		Seepage	1.00
		Filtering capacity	1.00
		Surface rock fragments	0.30
		Slope	0.20
HnD:			
Hermon, very bouldery	85	Very limited	
		Slope	1.00
		Seepage	1.00
		Filtering capacity	1.00
		Surface rock fragments	0.30
HrF:			
Hogback, very rocky, very bouldery	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
HrF:			
Knob Lock, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
HsD:			
Hollis, very stony	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Rock outcrop, very stony	30	Not rated	
HsF:			
Hollis, very stony	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Rock outcrop, very stony	30	Not rated	
KaB:			
Kalurah	85	Somewhat limited	
		Depth to saturated zone	0.80
KaC:			
Kalurah	85	Somewhat limited	
		Depth to saturated zone	0.80
		Slope	0.20
KgB:			
Kalurah, very stony	85	Somewhat limited	
		Depth to saturated zone	0.80
		Surface rock fragments	0.60
KgC:			
Kalurah, very stony	85	Somewhat limited	
		Depth to saturated zone	0.80
		Surface rock fragments	0.60
		Slope	0.20
KyA:			
Kingsbury	85	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
KyB:			
Kingsbury	85	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	1.00
LnA:			
Livingston	85	Very limited	
		Restricted permeability	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
LvA:			
Lovewell	85	Very limited	
		Flooding	1.00
		Seepage	0.90
		Depth to saturated zone	0.80
		Restricted permeability	0.31
LyD:			
Lyman, very rocky, very bouldery	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Knob Lock, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
LyF:			
Lyman, very rocky, very bouldery	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Knob Lock, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
MaB:			
Malone	85	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.80
MbB:			
Malone, very stony	85	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.80
		Surface rock fragments	0.60
McA:			
Massena	85	Very limited	
		Depth to saturated zone	1.00
McB:			
Massena	85	Very limited	
		Depth to saturated zone	1.00
MdA:			
Medomak	85	Very limited	
		Flooding	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
MhB:			
Monadnock	85	Somewhat limited	
		Seepage	0.90
MhC:			
Monadnock	85	Somewhat limited	
		Seepage	0.90
		Slope	0.20
MkB:			
Monadnock, very bouldery	85	Somewhat limited	
		Seepage	0.90
		Surface rock fragments	0.30
MkC:			
Monadnock, very bouldery	85	Somewhat limited	
		Seepage	0.90
		Surface rock fragments	0.30
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
MkD:			
Monadnock, very bouldery	85	Very limited	
		Slope	1.00
		Seepage	0.90
		Surface rock fragments	0.30
MkF:			
Monadnock, very bouldery	85	Very limited	
		Slope	1.00
		Seepage	0.90
		Surface rock fragments	0.30
MmF:			
Monadnock, bouldery	55	Very limited	
		Slope	1.00
		Seepage	0.90
Adams	25	Very limited	
		Slope	1.00
		Filtering capacity	1.00
		Seepage	1.00
MnC:			
Monadnock, rocky, very bouldery	45	Somewhat limited	
		Seepage	0.90
		Surface rock fragments	0.30
		Slope	0.20
Tunbridge, rocky, very bouldery	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
MnD:			
Monadnock, rocky, very bouldery	45	Very limited	
		Slope	1.00
		Seepage	0.90
		Surface rock fragments	0.30
Tunbridge, rocky, very bouldery	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
MnF:			
Monadnock, rocky, very bouldery------	45	Very limited	
		Slope	1.00
		Seepage	0.90
		Surface rock fragments	0.30
Tunbridge, rocky, very bouldery------	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
MoA:			
Mooers-------------	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.80
MuC:			
Mundalite, very bouldery----------	85	Somewhat limited	
		Surface rock fragments	0.60
		Depth to dense material	0.31
		Depth to saturated zone	0.31
		Restricted permeability	0.31
		Slope	0.20
MuD:			
Mundalite, very bouldery----------	85	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to dense material	0.31
		Depth to saturated zone	0.31
		Restricted permeability	0.31
MwC:			
Mundalite, rocky, very bouldery------	45	Somewhat limited	
		Surface rock fragments	0.60
		Depth to dense material	0.31
		Depth to saturated zone	0.31
		Restricted permeability	0.31
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
MwC:			
Rawsonville, rocky, very bouldery	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
MwD:			
Mundalite, rocky, very bouldery	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Depth to dense material	0.31
		Depth to saturated zone	0.31
		Restricted permeability	0.31
Rawsonville, rocky, very bouldery	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
NaA:			
Naumburg	85	Very limited	
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
NeB:			
Nellis	85	Not limited	
NeC:			
Nellis	85	Somewhat limited	
		Slope	0.20
NeD:			
Nellis	85	Very limited	
		Slope	1.00
NgA:			
Niagara	85	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.77
NgB:			
Niagara	85	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.77

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
NvB:			
Nicholville	85	Somewhat limited	
		Depth to saturated zone	0.80
OmA:			
Occum	85	Very limited	
		Flooding	1.00
		Seepage	0.90
OwA:			
Ondawa	85	Very limited	
		Flooding	1.00
		Seepage	0.90
Pc:			
Pits, quarry	85	Not rated	
Pd:			
Pits, sand and gravel	85	Not rated	
PfB:			
Pittsfield	85	Not limited	
PfC:			
Pittsfield	85	Somewhat limited	
		Slope	0.20
PfD:			
Pittsfield	85	Very limited	
		Slope	1.00
PfE:			
Pittsfield	85	Very limited	
		Slope	1.00
PkA:			
Pleasant Lake	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Restricted permeability	0.60
PlB:			
Pittsfield, rocky, very stony	45	Somewhat limited	
		Surface rock fragments	0.30
Chatfield, rocky, very stony	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
PlC:			
Pittsfield, rocky, very stony	45	Somewhat limited	
		Surface rock fragments	0.30
		Slope	0.20
Chatfield, rocky, very stony	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
PlD:			
Pittsfield, rocky, very stony	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.30
Chatfield, rocky, very stony	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
PlF:			
Pittsfield, rocky, very stony	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.30
Chatfield, rocky, very stony	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
PoA:			
Podunk	85	Very limited	
		Flooding	1.00
		Seepage	0.90
		Depth to saturated zone	0.80
PrA:			
Pootatuck	85	Very limited	
		Flooding	1.00
		Seepage	0.90
		Depth to saturated zone	0.80
PtB:			
Pyrities	85	Not limited	

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
PtC:			
Pyrities------------	85	Somewhat limited	
		Slope	0.20
PtD:			
Pyrities------------	85	Very limited	
		Slope	1.00
PuC:			
Pyrities, very stony	85	Somewhat limited	
		Surface rock fragments	0.30
		Slope	0.20
PuD:			
Pyrities, very stony	85	Very limited	
		Slope	1.00
		Surface rock fragments	0.30
PwC:			
Pyrities, very stony	45	Somewhat limited	
		Surface rock fragments	0.30
		Slope	0.20
Nehasne, very stony-	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
PwD:			
Pyrities, very stony	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.30
Nehasne, very stony-	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
PyC:			
Pyrities------------	45	Somewhat limited	
		Slope	0.20
Nehasne-------------	30	Somewhat limited	
		Depth to bedrock	0.75
		Slope	0.20
PyD:			
Pyrities------------	45	Very limited	
		Slope	1.00
Nehasne-------------	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
RaC:			
Rawsonville, very rocky, very bouldery	45	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
Hogback, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Slope	0.20
RaD:			
Rawsonville, very rocky, very bouldery	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Hogback, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
RaF:			
Rawsonville, very rocky, very bouldery	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Hogback, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
RmA:			
Rippowam	85	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
RpF:			
Rock outcrop, very bouldery	40	Not rated	

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
RpF:			
Knob Lock, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
Lyman, very rocky, very bouldery	20	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
RsA:			
Roundabout	85	Very limited	
		Depth to saturated zone	1.00
RuA:			
Rumney	85	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
RyA:			
Rumney	45	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
Burnt Vly	30	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.52
SeA:			
Searsport	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
SkB:			
Skerry	85	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
SnB:			
Sunapee, very bouldery	85	Somewhat limited	
		Seepage	0.90
		Depth to saturated zone	0.80
		Surface rock fragments	0.60
SpB:			
Sunapee	85	Somewhat limited	
		Seepage	0.90
		Depth to saturated zone	0.80
SrB:			
Skerry, very bouldery	85	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
SrC:			
Skerry, very bouldery	85	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Slope	0.20
StA:			
Stafford	85	Very limited	
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
SuA:			
Sun	85	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
TaA:			
Tahawus, very bouldery	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
TeA:			
Typic Endoaquolls, very stony	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.28
ToA:			
Tonawanda	85	Very limited	
		Depth to saturated zone	1.00
TuC:			
Tunbridge, very rocky, very bouldery	45	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
Lyman, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Slope	0.20
TuD:			
Tunbridge, very rocky, very bouldery	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Lyman, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
TuF:			
Tunbridge, very rocky, very bouldery	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Lyman, very rocky, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
UlC:			
Udorthents	100	Not rated	
UmF:			
Udorthents, mine spoil	100	Not rated	
VeB:			
Vergennes	85	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	0.80
VeC:			
Vergennes	85	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	0.80
		Slope	0.20
VeD:			
Vergennes	85	Very limited	
		Restricted permeability	1.00
		Slope	1.00
		Depth to saturated zone	0.80
VeE:			
Vergennes	85	Very limited	
		Restricted permeability	1.00
		Slope	1.00
		Depth to saturated zone	0.80
W:			
Water	100	Not rated	
WeA:			
Wegatchie	85	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.97
WlA:			
Whallonsburg	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.60
WnA:			
Windsor	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
WnB:			
Windsor	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
WnC:			
Windsor	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
WnD:			
Windsor	85	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
WnE:			
Windsor	85	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
WoA:			
Wonsqueak	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.60

Table 16.—Construction Materials

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above any restriction and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
10A:					
Pleasant Lake-------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Organic matter content	0.00	Organic matter content	0.00
		Hydric soil	0.00	Hydric soil	0.00
Burnt Vly-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Thickest layer	0.27
13A:					
Burnt Vly-----------	40	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Thickest layer	0.27
Rumney--------------	30	Improbable		Improbable	
		Bottom layer	0.00	Hydric soil	0.00
		Thickest layer	0.00	Bottom layer	0.29
		Hydric soil	0.00	Thickest layer	0.29
Pleasant Lake-------	20	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Organic matter content	0.00	Organic matter content	0.00
		Hydric soil	0.00	Hydric soil	0.00
29C:					
Burnt Vly-----------	40	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Thickest layer	0.27
Colton--------------	30	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
Rumney--------------	20	Improbable		Improbable	
		Bottom layer	0.00	Hydric soil	0.00
		Thickest layer	0.00	Bottom layer	0.29
		Hydric soil	0.00	Thickest layer	0.29
113A:					
Ondawa--------------	45	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.30

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
113A:					
Rumney	30	Improbable		Improbable	
		Bottom layer	0.00	Hydric soil	0.00
		Thickest layer	0.00	Bottom layer	0.29
		Hydric soil	0.00	Thickest layer	0.29
123A:					
Lovewell	45	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.99
Cornish	30	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.30
350B:					
Duxbury, very stony	85	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.71
		Thickest layer	0.00	Thickest layer	0.71
363A:					
Adams	75	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
363B:					
Adams	75	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
363D:					
Adams	75	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
363F:					
Adams	75	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
365A:					
Naumburg	45	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
Croghan	30	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
367A:					
Searsport	40	Improbable		Improbable	
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
Haplosaprists	30	Improbable		Improbable	
		Thickest layer	0.00	Thickest layer	0.00
		Hydric soil	0.00	Hydric soil	0.00
		Bottom layer	0.00	Bottom layer	0.30
Naumburg	20	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
375A:					
Colton	45	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
Adams	30	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
375C:					
Colton	45	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
Adams	30	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
375D:					
Colton	45	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
Adams	30	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
375F:					
Colton	45	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
Adams	30	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
649C:					
Monadnock, rocky, very bouldery	40	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
Tunbridge, rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tahawus, very bouldery	20	Improbable		Improbable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Bottom layer	0.26
650C:					
Monadnock, bouldery	40	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
Adams	30	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
650C:					
Colton	20	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
650D:					
Monadnock, bouldery	40	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
Adams	30	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
Colton	20	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
651D:					
Monadnock, rocky, very bouldery	45	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
Tunbridge, rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
653C:					
Monadnock, very bouldery	85	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
653D:					
Monadnock, very bouldery	85	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
655B:					
Sunapee, very bouldery	45	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.29
Monadnock, very bouldery	30	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
657C:					
Monadnock, very bouldery	60	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
Tahawus, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Bottom layer	0.26

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
657D:					
Monadnock, very bouldery	60	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
Tahawus, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Bottom layer	0.26
661C:					
Hermon, very bouldery	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.29
		Thickest layer	0.00	Bottom layer	0.57
661D:					
Hermon, very bouldery	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.29
		Thickest layer	0.00	Bottom layer	0.57
661F:					
Hermon, very bouldery	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.29
		Thickest layer	0.00	Bottom layer	0.57
705B:					
Adirondack, very bouldery	40	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tahawus, very bouldery	35	Improbable		Improbable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Bottom layer	0.26
721C:					
Becket, rocky, very bouldery	40	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tunbridge, rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Skerry, rocky, very bouldery	20	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
721D:					
Becket, rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tunbridge, rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
721F:					
Becket, rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tunbridge, rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
723C:					
Becket, very bouldery-----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
723D:					
Becket, very bouldery-----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
723F:					
Becket, very bouldery-----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
725B:					
Skerry, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Becket, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
727B:					
Skerry, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Adirondack, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
831C:					
Tunbridge, very rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lyman, very rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
831D:					
Tunbridge, very rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lyman, very rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
831F:					
Tunbridge, very rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lyman, very rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
833C:					
Tunbridge, very rocky, very bouldery-----------	40	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Adirondack, very rocky, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lyman, very rocky, very bouldery------	20	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
851D:					
Lyman, very rocky, very bouldery------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
851D:					
Knob Lock, very rocky, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
851F:					
Lyman, very rocky, very bouldery------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Knob Lock, very rocky, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
881F:					
Rock outcrop, very bouldery-----------	40	Not rated		Not rated	
Knob Lock, very rocky, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lyman, very rocky, very bouldery------	20	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
930C:					
Mundalite, rocky, very bouldery------	40	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rawsonville, rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ampersand, rocky, very bouldery------	20	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
931D:					
Mundalite, rocky, very bouldery------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rawsonville, rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
931F:					
Mundalite, rocky, very bouldery------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rawsonville, rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
932C:					
Mundalite, very bouldery----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ampersand, very bouldery----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
932D:					
Mundalite, very bouldery----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ampersand, very bouldery----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
934C:					
Ampersand, very bouldery----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Wilmington, very bouldery----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Hydric soil	0.00	Hydric soil	0.00
941C:					
Rawsonville, very rocky, very bouldery----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hogback, very rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
941D:					
Rawsonville, very rocky, very bouldery----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
941D:					
Hogback, very rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
941F:					
Rawsonville, very rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hogback, very rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
944D:					
Hogback, very rocky, very bouldery------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Knob Lock, very rocky, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
944F:					
Hogback, very rocky, very bouldery------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Knob Lock, very rocky, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
948F:					
Rock outcrop, very bouldery-----------	40	Not rated		Not rated	
Knob Lock, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hogback, very bouldery-----------	20	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
971D:					
Esther, rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
971D:					
Wallface, rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
975C:					
Andic Cryaquods, very bouldery------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Esther, very bouldery-----------	35	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
975D:					
Esther, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Andic Cryaquods, very bouldery------	35	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
992D:					
Wallface, very rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Skylight, very rocky, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
993F:					
Santanoni, very rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Skylight, very rocky, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
995D:					
Ricker, very rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Organic matter content	0.00	Organic matter content	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
995D:					
Couchsachraga, very rocky, very bouldery	25	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Skylight, very rocky, very bouldery	20	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
995F:					
Ricker, very rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Organic matter content	0.00	Organic matter content	0.00
Couchsachraga, very rocky, very bouldery	25	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Skylight, very rocky, very bouldery	20	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
998F:					
Rock outcrop, very bouldery	30	Not rated		Not rated	
Ricker, very bouldery	25	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Organic matter content	0.00	Organic matter content	0.00
Skylight, very bouldery	20	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
AdA:					
Adams	85	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
AdB:					
Adams	85	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
AdC:					
Adams---------------	85	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
AdD:					
Adams---------------	85	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
AdE:					
Adams---------------	85	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
AkA:					
Adirondack, very bouldery-----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
AkB:					
Adirondack, very bouldery-----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
AmB:					
Amenia--------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
AmC:					
Amenia--------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BcB:					
Becket--------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BcC:					
Becket--------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BeB:					
Becket, very bouldery-----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BeC:					
Becket, very bouldery-----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
BeD:					
Becket, very bouldery	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BeF:					
Becket, very bouldery	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BkC:					
Becket, rocky, very bouldery	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tunbridge, rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BkD:					
Becket, rocky, very bouldery	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tunbridge, rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BoB:					
Bombay	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BuA:					
Bucksport	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Organic matter content	0.00	Organic matter content	0.00
		Hydric soil	0.00	Hydric soil	0.00
BvA:					
Burnt Vly	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Thickest layer	0.27
CaA:					
Catden	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Organic matter content	0.00	Organic matter content	0.00
		Hydric soil	0.00	Hydric soil	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
CbA:					
Colton, very bouldery----------	85	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
CbB:					
Colton, very bouldery----------	85	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
CbC:					
Colton, very bouldery----------	85	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
CbD:					
Colton, very bouldery----------	85	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
CgB:					
Cayuga--------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CgC:					
Cayuga--------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ChB:					
Champlain-----------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.84
		Thickest layer	0.00	Bottom layer	0.99
ChC:					
Champlain-----------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.84
		Thickest layer	0.00	Bottom layer	0.99
ChD:					
Champlain-----------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.84
		Thickest layer	0.00	Bottom layer	0.99
ChE:					
Champlain-----------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.84
		Thickest layer	0.00	Bottom layer	0.99
CkA:					
Charles-------------	85	Improbable		Improbable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Bottom layer	0.29

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
ClB:					
Charlton	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ClC:					
Charlton	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ClD:					
Charlton	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CnC:					
Charlton, rocky, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Chatfield, rocky, very stony	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CnD:					
Charlton, rocky, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Chatfield, rocky, very stony	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CoB:					
Chatfield, very rocky, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hollis, very rocky, very stony	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CoC:					
Chatfield, very rocky, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hollis, very rocky, very stony	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
CoD:					
Chatfield, very rocky, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hollis, very rocky, very stony	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CoF:					
Chatfield, very rocky, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hollis, very rocky, very stony	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CpB:					
Churchville	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CqA:					
Claverack	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CqB:					
Claverack	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CrB:					
Collamer	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CsA:					
Colton	85	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
CsB:					
Colton	85	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
CsC:					
Colton	85	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
CsD:					
Colton	85	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
CsE:					
Colton	85	Probable		Probable	
		Thickest layer	0.00	Thickest layer	0.23
		Bottom layer	0.37	Bottom layer	0.37
CtA:					
Cornish	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.30
CuA:					
Cosad	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CuB:					
Cosad	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CvA:					
Covington	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Hydric soil	0.00	Hydric soil	0.00
CwA:					
Croghan	85	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
CwB:					
Croghan	85	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
DeA:					
Deerfield	85	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.86
		Thickest layer	0.00	Thickest layer	0.86
DeB:					
Deerfield	85	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.86
		Thickest layer	0.00	Thickest layer	0.86
DpC:					
Depeyster	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DpD:					
Depeyster	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DuC:					
Dunkirk	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
DuD:					
Dunkirk	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DuE:					
Dunkirk	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DxB:					
Duxbury	85	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.71
		Thickest layer	0.00	Thickest layer	0.71
ElB:					
Elmridge	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
FaD:					
Farmington, very rocky, very stony	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
FcB:					
Factoryville	45	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
Colonie, calcareous substratum	30	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.96
		Thickest layer	0.00	Bottom layer	0.99
FcC:					
Factoryville	45	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
Colonie, calcareous substratum	30	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.96
		Thickest layer	0.00	Bottom layer	0.99
FcD:					
Factoryville	45	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
Colonie, calcareous substratum	30	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.96
		Thickest layer	0.00	Bottom layer	0.99
FdF:					
Factoryville	45	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
FdF:					
Dunkirk-------------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
FgB:					
Farmington, very rocky, very stony--	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Galway, very rocky, very stony---------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
FkF:					
Farmington, very stony--------------	60	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rock outcrop, very stony--------------	30	Not rated		Not rated	
FnB:					
Fernlake, very bouldery-----------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.26
		Thickest layer	0.00	Bottom layer	0.97
FnC:					
Fernlake, very bouldery-----------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.26
		Thickest layer	0.00	Bottom layer	0.97
FnD:					
Fernlake, very bouldery-----------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.26
		Thickest layer	0.00	Bottom layer	0.97
FnF:					
Fernlake, very bouldery-----------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.26
		Thickest layer	0.00	Bottom layer	0.97
FrB:					
Factoryville--------	85	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
FuA:					
Fluvaquents, frequently flooded-	45	Improbable		Improbable	
		Hydric soil	0.00	Thickest layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Bottom layer	0.25	Bottom layer	0.99

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
FuA:					
Udifluvents, frequently flooded	30	Improbable		Improbable	
		Hydric soil	0.00	Thickest layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Bottom layer	0.25	Bottom layer	0.98
GeB:					
Georgia	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
GeC:					
Georgia	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
GoA:					
Gougeville	85	Improbable		Improbable	
		Bottom layer	0.00	Hydric soil	0.00
		Thickest layer	0.00	Bottom layer	0.99
		Hydric soil	0.00	Thickest layer	0.99
HaB:					
Hailesboro	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HcB:					
Howard	85	Probable		Probable	
		Thickest layer	0.00	Bottom layer	0.03
		Bottom layer	0.03	Thickest layer	0.03
HcC:					
Howard	85	Probable		Probable	
		Thickest layer	0.00	Bottom layer	0.03
		Bottom layer	0.03	Thickest layer	0.03
HcD:					
Howard	85	Probable		Probable	
		Thickest layer	0.00	Bottom layer	0.03
		Bottom layer	0.03	Thickest layer	0.03
HdB:					
Hartland	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HgB:					
Howard	85	Probable		Probable	
		Thickest layer	0.25	Bottom layer	0.18
		Bottom layer	0.29	Thickest layer	0.18
HlB:					
Howard	85	Probable		Probable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.03	Thickest layer	0.03
HlC:					
Howard	85	Probable		Probable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.03	Thickest layer	0.03

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
HmB:					
Howard	85	Probable		Probable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.29	Thickest layer	0.18
HnC:					
Hermon, very bouldery	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.29
		Thickest layer	0.00	Bottom layer	0.57
HnD:					
Hermon, very bouldery	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.29
		Thickest layer	0.00	Bottom layer	0.57
HrF:					
Hogback, very rocky, very bouldery	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Knob Lock, very rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HsD:					
Hollis, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rock outcrop, very stony	30	Not rated		Not rated	
HsF:					
Hollis, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rock outcrop, very stony	30	Not rated		Not rated	
KaB:					
Kalurah	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KaC:					
Kalurah	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KgB:					
Kalurah, very stony	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
KgC:					
Kalurah, very stony-	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KyA:					
Kingsbury-----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KyB:					
Kingsbury-----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LnA:					
Livingston----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Hydric soil	0.00	Hydric soil	0.00
LvA:					
Lovewell------------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.99
LyD:					
Lyman, very rocky, very bouldery------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Knob Lock, very rocky, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LyF:					
Lyman, very rocky, very bouldery------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Knob Lock, very rocky, very bouldery-----------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MaB:					
Malone--------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MbB:					
Malone, very stony--	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
McA:					
Massena	85	Improbable		Improbable	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
McB:					
Massena	85	Improbable		Improbable	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
MdA:					
Medomak	85	Improbable		Improbable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Bottom layer	0.29
MhB:					
Monadnock	85	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
MhC:					
Monadnock	85	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
MkB:					
Monadnock, very bouldery	85	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
MkC:					
Monadnock, very bouldery	85	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
MkD:					
Monadnock, very bouldery	85	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
MkF:					
Monadnock, very bouldery	85	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
MmF:					
Monadnock, bouldery	55	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
Adams	25	Improbable		Probable	
		Thickest layer	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
MnC:					
Monadnock, rocky, very bouldery	45	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
Tunbridge, rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MnD:					
Monadnock, rocky, very bouldery	45	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
Tunbridge, rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MnF:					
Monadnock, rocky, very bouldery	45	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.80
Tunbridge, rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MoA:					
Mooers	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.99
		Thickest layer	0.00	Bottom layer	0.99
MuC:					
Mundalite, very bouldery	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MuD:					
Mundalite, very bouldery	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MwC:					
Mundalite, rocky, very bouldery	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rawsonville, rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
MwD:					
Mundalite, rocky, very bouldery------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rawsonville, rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
NaA:					
Naumburg------------	85	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
NeB:					
Nellis--------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
NeC:					
Nellis--------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
NeD:					
Nellis--------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
NgA:					
Niagara-------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
NgB:					
Niagara-------------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
NvB:					
Nicholville---------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OmA:					
Occum---------------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.99
OwA:					
Ondawa--------------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.30
Pc:					
Pits, quarry--------	85	Not rated		Not rated	
Pd:					
Pits, sand and gravel-------------	85	Not rated		Not rated	

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
PfB:					
Pittsfield----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PfC:					
Pittsfield----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PfD:					
Pittsfield----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PfE:					
Pittsfield----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PkA:					
Pleasant Lake-------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Organic matter content	0.00	Organic matter content	0.00
		Hydric soil	0.00	Hydric soil	0.00
PlB:					
Pittsfield, rocky, very stony---------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Chatfield, rocky, very stony---------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PlC:					
Pittsfield, rocky, very stony---------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Chatfield, rocky, very stony---------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PlD:					
Pittsfield, rocky, very stony---------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Chatfield, rocky, very stony---------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
PlF:					
Pittsfield, rocky, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Chatfield, rocky, very stony	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PoA:					
Podunk	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.30
		Thickest layer	0.00	Bottom layer	0.99
PrA:					
Pootatuck	85	Improbable		Probable	
		Bottom layer	0.00	Bottom layer	0.30
		Thickest layer	0.00	Thickest layer	0.30
PtB:					
Pyrities	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PtC:					
Pyrities	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PtD:					
Pyrities	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PuC:					
Pyrities, very stony	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PuD:					
Pyrities, very stony	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PwC:					
Pyrities, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nehasne, very stony	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PwD:					
Pyrities, very stony	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nehasne, very stony	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
PyC:					
Pyrities------------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nehasne-------------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PyD:					
Pyrities------------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nehasne-------------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RaC:					
Rawsonville, very rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hogback, very rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RaD:					
Rawsonville, very rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hogback, very rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RaF:					
Rawsonville, very rocky, very bouldery-----------	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hogback, very rocky, very bouldery------	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RmA:					
Rippowam------------	85	Improbable		Improbable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Bottom layer	0.29

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
RpF:					
Rock outcrop, very bouldery	40	Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lyman, very rocky, very bouldery	20	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RsA:					
Roundabout	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RuA:					
Rumney	85	Improbable		Improbable	
		Bottom layer	0.00	Hydric soil	0.00
		Thickest layer	0.00	Bottom layer	0.29
		Hydric soil	0.00	Thickest layer	0.29
RyA:					
Rumney	45	Improbable		Improbable	
		Bottom layer	0.00	Hydric soil	0.00
		Thickest layer	0.00	Bottom layer	0.29
		Hydric soil	0.00	Thickest layer	0.29
Burnt Vly	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Thickest layer	0.27
SeA:					
Searsport	85	Improbable		Improbable	
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Bottom layer	0.99
		Bottom layer	0.00	Thickest layer	0.99
SkB:					
Skerry	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SnB:					
Sunapee, very bouldery	85	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.29
SpB:					
Sunapee	85	Improbable		Probable	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.29

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
SrB:					
Skerry, very bouldery	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SrC:					
Skerry, very bouldery	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
StA:					
Stafford	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.18
		Thickest layer	0.00	Bottom layer	0.86
SuA:					
Sun	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Hydric soil	0.00	Hydric soil	0.00
TaA:					
Tahawus, very bouldery	85	Improbable		Improbable	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Hydric soil	0.00
		Hydric soil	0.00	Bottom layer	0.26
TeA:					
Typic Endoaquolls, very stony	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Hydric soil	0.00	Hydric soil	0.00
ToA:					
Tonawanda	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TuC:					
Tunbridge, very rocky, very bouldery	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lyman, very rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TuD:					
Tunbridge, very rocky, very bouldery	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Potential source of gravel: Value	Potential source of sand: Rating class	Potential source of sand: Value
TuD:					
Lyman, very rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TuF:					
Tunbridge, very rocky, very bouldery	45	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lyman, very rocky, very bouldery	30	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
UlC:					
Udorthents	100	Not rated		Not rated	
UmF:					
Udorthents, mine spoil	100	Not rated		Not rated	
VeB:					
Vergennes	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
VeC:					
Vergennes	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
VeD:					
Vergennes	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
VeE:					
Vergennes	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
W:					
Water	100	Not rated		Not rated	
WeA:					
Wegatchie	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Hydric soil	0.00	Hydric soil	0.00
WlA:					
Whallonsburg	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Hydric soil	0.00	Hydric soil	0.00

Table 16.—Construction Materials—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
WnA:					
Windsor-------------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.18
		Thickest layer	0.00	Bottom layer	0.86
WnB:					
Windsor-------------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.18
		Thickest layer	0.00	Bottom layer	0.86
WnC:					
Windsor-------------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.18
		Thickest layer	0.00	Bottom layer	0.86
WnD:					
Windsor-------------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.18
		Thickest layer	0.00	Bottom layer	0.86
WnE:					
Windsor-------------	85	Improbable		Probable	
		Bottom layer	0.00	Thickest layer	0.18
		Thickest layer	0.00	Bottom layer	0.86
WoA:					
Wonsqueak-----------	85	Improbable		Improbable	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
		Hydric soil	0.00	Hydric soil	0.00

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
10A:							
Pleasant Lake	45	Poor		Poor		Not rated	
		Too acid	0.00	Wetness depth	0.00		
Burnt Vly	30	Poor		Poor		Not rated	
		Too acid	0.00	Wetness depth	0.00		
		Organic matter content low	0.18				
13A:							
Burnt Vly	40	Poor		Poor		Not rated	
		Too acid	0.00	Wetness depth	0.00		
		Organic matter content low	0.18				
Rumney	30	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.74			Hard to reclaim (rock fragments)	0.00
Pleasant Lake	20	Poor		Poor		Not rated	
		Too acid	0.00	Wetness depth	0.00		
29C:							
Burnt Vly	40	Poor		Poor		Not rated	
		Too acid	0.00	Wetness depth	0.00		
		Organic matter content low	0.18				
Colton	30	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.00
		Organic matter content low	0.50				
Rumney	20	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.74			Hard to reclaim (rock fragments)	0.00
113A:							
Ondawa	45	Fair		Good		Fair	
		Organic matter content low	0.18			Too acid	0.99
		Too acid	0.61				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
113A:							
Rumney	30	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.74			Hard to reclaim (rock fragments)	0.00
123A:							
Lovewell	45	Fair		Fair		Fair	
		Too acid	0.32	Wetness depth	0.24	Wetness depth	0.24
		Organic matter content low	0.50				
		Water erosion	0.68				
Cornish	30	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.84				
		Water erosion	0.90				
350B:							
Duxbury, very stony	85	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Organic matter content low	0.50			Too sandy	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.08
						Slope	0.96
363A:							
Adams	75	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
363B:							
Adams	75	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.96
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
363D:							
Adams	75	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
363F:							
Adams	75	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
365A:							
Naumburg	45	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too sandy	0.00			Too sandy	0.00
		Too acid	0.01			Too acid	0.88
		Organic matter content low	0.50				
		Droughty	0.74				
Croghan	30	Poor		Fair		Poor	
		Wind erosion	0.00	Wetness depth	0.44	Too sandy	0.00
		Too sandy	0.00			Wetness depth	0.44
		Too acid	0.32				
		Droughty	0.50				
		Organic matter content low	0.50				
367A:							
Searsport	40	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.46			Too sandy	0.00
		Organic matter content low	0.50				
Haplosaprists	30	Poor		Poor		Not rated	
		Wind erosion	0.00	Wetness depth	0.00		
		Too sandy	0.09				
Naumburg	20	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too sandy	0.00			Too sandy	0.00
		Too acid	0.01			Too acid	0.88
		Organic matter content low	0.50				
		Droughty	0.74				
375A:							
Colton	45	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.00
		Organic matter content low	0.50				
Adams	30	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
375C:							
Colton	45	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.00
		Organic matter content low	0.50			Slope	0.96
Adams	30	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.96
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
375D:							
Colton	45	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Droughty	0.00			Rock fragments	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.50			Too sandy	0.00
Adams	30	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
375F:							
Colton	45	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Droughty	0.00			Rock fragments	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.50			Too sandy	0.00
Adams	30	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
649C:							
Monadnock, rocky, very bouldery	40	Fair		Good		Fair	
		Too acid	0.50			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Slope	0.96
						Rock fragments	0.99

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
649C:							
Tunbridge, rocky, very bouldery	30	Fair		Poor		Fair	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Depth to bedrock	0.29
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.88			Too acid	0.95
						Slope	0.96
Tahawus, very bouldery	20	Fair		Poor		Poor	
		Too sandy	0.15	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.18			Rock fragments	0.00
		Too acid	0.50			Too sandy	0.15
						Hard to reclaim (rock fragments)	0.88
650C:							
Monadnock, bouldery	40	Fair		Good		Fair	
		Too acid	0.50			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Slope	0.96
						Rock fragments	0.99
Adams	30	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.96
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
Colton	20	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.00
		Organic matter content low	0.50			Slope	0.96
650D:							
Monadnock, bouldery	40	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
Adams	30	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
650D:							
Colton	20	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Droughty	0.00			Rock fragments	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.50			Too sandy	0.00
651D:							
Monadnock, rocky, very bouldery	45	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
Tunbridge, rocky, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Depth to bedrock	0.29
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
653C:							
Monadnock, very bouldery	85	Fair		Good		Fair	
		Too acid	0.50			Slope	0.63
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
653D:							
Monadnock, very bouldery	85	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
655B:							
Sunapee, very bouldery	45	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.62	Rock fragments	0.50
						Wetness depth	0.62
						Too acid	0.95
						Slope	0.96
						Hard to reclaim (rock fragments)	0.98
Monadnock, very bouldery	30	Fair		Good		Fair	
		Too acid	0.50			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Slope	0.96
						Rock fragments	0.99

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
657C:							
Monadnock, very bouldery	60	Fair		Good		Fair	
		Too acid	0.50			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Slope	0.96
						Rock fragments	0.99
Tahawus, very bouldery	30	Fair		Poor		Poor	
		Too sandy	0.15	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.18			Rock fragments	0.00
		Too acid	0.50			Too sandy	0.15
						Hard to reclaim (rock fragments)	0.88
657D:							
Monadnock, very bouldery	60	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
Tahawus, very bouldery	30	Fair		Poor		Poor	
		Too sandy	0.15	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.18			Rock fragments	0.00
		Too acid	0.50			Too sandy	0.15
						Hard to reclaim (rock fragments)	0.88
661C:							
Hermon, very bouldery	85	Poor		Fair		Poor	
		Wind erosion	0.00	Stones	0.99	Rock fragments	0.00
		Too sandy	0.10			Hard to reclaim (rock fragments)	0.00
		Droughty	0.48			Too sandy	0.10
		Too acid	0.50			Too acid	0.95
		Organic matter content low	0.50			Slope	0.96
		Stone content	0.94				
661D:							
Hermon, very bouldery	85	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.10	Stones	0.99	Rock fragments	0.00
		Droughty	0.48			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.10
		Organic matter content low	0.50			Too acid	0.95
		Stone content	0.94				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
661F:							
Hermon, very bouldery	85	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.10	Stones	0.99	Rock fragments	0.00
		Droughty	0.48			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.10
		Organic matter content low	0.50			Too acid	0.95
		Stone content	0.94				
705B:							
Adirondack, very bouldery	40	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.01			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
Tahawus, very bouldery	35	Fair		Poor		Poor	
		Too sandy	0.15	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.18			Rock fragments	0.00
		Too acid	0.50			Too sandy	0.15
						Hard to reclaim (rock fragments)	0.88
721C:							
Becket, rocky, very bouldery	40	Fair		Fair		Fair	
		Too acid	0.20	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
		Droughty	0.73			Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
						Slope	0.96
Tunbridge, rocky, very bouldery	30	Fair		Poor		Fair	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Depth to bedrock	0.29
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.88			Too acid	0.95
						Slope	0.96
Skerry, rocky, very bouldery	20	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.38	Wetness depth	0.38
		Droughty	0.99			Rock fragments	0.50
						Slope	0.96
721D:							
Becket, rocky, very bouldery	45	Fair		Poor		Poor	
		Too acid	0.20	Slope	0.00	Slope	0.00
		Droughty	0.73	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
						Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
721D:							
Tunbridge, rocky, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Depth to bedrock	0.29
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
721F:							
Becket, rocky, very bouldery	45	Fair		Poor		Poor	
		Too acid	0.20	Slope	0.00	Slope	0.00
		Droughty	0.73	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
						Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
Tunbridge, rocky, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.29	Slope	0.00	Slope	0.00
		Too acid	0.50	Depth to bedrock	0.00	Depth to bedrock	0.29
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
723C:							
Becket, very bouldery	85	Fair		Fair		Fair	
		Too acid	0.20	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
		Droughty	0.73			Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
						Slope	0.96
723D:							
Becket, very bouldery	85	Fair		Poor		Poor	
		Too acid	0.20	Slope	0.00	Slope	0.00
		Droughty	0.73	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
						Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
723F:							
Becket, very bouldery	85	Fair		Poor		Poor	
		Too acid	0.20	Slope	0.00	Slope	0.00
		Droughty	0.73	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
						Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
725B:							
Skerry, very bouldery	45	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.38	Wetness depth	0.38
		Droughty	0.99			Rock fragments	0.50
						Slope	0.96

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
725B:							
Becket, very bouldery	30	Fair		Fair		Fair	
		Too acid	0.20	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
		Droughty	0.73			Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
						Slope	0.96
727B:							
Skerry, very bouldery	45	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.38	Wetness depth	0.38
		Droughty	0.99			Rock fragments	0.50
Adirondack, very bouldery	30	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.01			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
831C:							
Tunbridge, very rocky, very bouldery	45	Fair		Poor		Fair	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Depth to bedrock	0.29
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.88			Too acid	0.95
						Slope	0.96
Lyman, very rocky, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Too acid	0.88
		Too acid	0.50			Rock fragments	0.88
						Slope	0.96
831D:							
Tunbridge, very rocky, very bouldery	45	Fair		Poor		Poor	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Depth to bedrock	0.29
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
Lyman, very rocky, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
831F:							
Tunbridge, very rocky, very bouldery	45	Fair		Poor		Poor	
		Depth to bedrock	0.29	Slope	0.00	Slope	0.00
		Too acid	0.50	Depth to bedrock	0.00	Depth to bedrock	0.29
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
Lyman, very rocky, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88
833C:							
Tunbridge, very rocky, very bouldery	40	Fair		Poor		Fair	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Depth to bedrock	0.29
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.88			Too acid	0.95
						Slope	0.96
Adirondack, very rocky, very bouldery	30	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.01			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Slope	0.96
Lyman, very rocky, very bouldery	20	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Too acid	0.88
		Too acid	0.50			Rock fragments	0.88
						Slope	0.96
851D:							
Lyman, very rocky, very bouldery	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88
Knob Lock, very rocky, very bouldery	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00		
		Droughty	0.00	Slope	0.00		
		Too acid	0.50				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
851F:							
Lyman, very rocky, very bouldery	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88
Knob Lock, very rocky, very bouldery	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00		
		Droughty	0.00	Slope	0.00		
		Too acid	0.50				
881F:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00		
		Droughty	0.00	Slope	0.00		
		Too acid	0.50				
Lyman, very rocky, very bouldery	20	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88
930C:							
Mundalite, rocky, very bouldery	40	Poor		Fair		Poor	
		Organic matter content low	0.00	Wetness depth	0.62	Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Wetness depth	0.62
						Rock fragments	0.79
						Too acid	0.88
						Slope	0.96
Rawsonville, rocky, very bouldery	30	Fair		Poor		Fair	
		Depth to bedrock	0.14	Depth to bedrock	0.00	Depth to bedrock	0.14
		Too acid	0.50			Organic matter content low	0.68
		Droughty	0.94			Too acid	0.76
						Slope	0.96
Ampersand, rocky, very bouldery	20	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.01	Wetness depth	0.01
						Slope	0.96
						Too acid	0.99

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
931D:							
Mundalite, rocky, very bouldery	45	Poor		Poor		Poor	
		Organic matter content low	0.00	Slope	0.00	Slope	0.00
		Too acid	0.50	Wetness depth	0.62	Hard to reclaim (rock fragments)	0.00
						Wetness depth	0.62
						Rock fragments	0.79
						Too acid	0.88
Rawsonville, rocky, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.14	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Depth to bedrock	0.14
		Droughty	0.94			Organic matter content low	0.68
						Too acid	0.76
931F:							
Mundalite, rocky, very bouldery	45	Poor		Poor		Poor	
		Organic matter content low	0.00	Slope	0.00	Slope	0.00
		Too acid	0.50	Wetness depth	0.62	Hard to reclaim (rock fragments)	0.00
						Wetness depth	0.62
						Rock fragments	0.79
						Too acid	0.88
Rawsonville, rocky, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.14	Slope	0.00	Slope	0.00
		Too acid	0.50	Depth to bedrock	0.00	Depth to bedrock	0.14
		Droughty	0.94			Organic matter content low	0.68
						Too acid	0.76
932C:							
Mundalite, very bouldery	45	Poor		Fair		Poor	
		Organic matter content low	0.00	Wetness depth	0.62	Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Wetness depth	0.62
						Rock fragments	0.79
						Too acid	0.88
						Slope	0.96
Ampersand, very bouldery	30	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.01	Wetness depth	0.01
						Slope	0.96
						Too acid	0.99

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
932D:							
Mundalite, very bouldery-----------	45	Poor		Poor		Poor	
		Organic matter content low	0.00	Slope	0.00	Slope	0.00
		Too acid	0.50	Wetness depth	0.62	Hard to reclaim (rock fragments)	0.00
						Wetness depth	0.62
						Rock fragments	0.79
						Too acid	0.88
Ampersand, very bouldery-----------	30	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
				Wetness depth	0.01	Wetness depth	0.01
						Too acid	0.99
934C:							
Ampersand, very bouldery-----------	45	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.01	Wetness depth	0.01
						Too acid	0.99
Wilmington, very bouldery-----------	30	Fair		Poor		Poor	
		Too acid	0.50	Wetness depth	0.00	Wetness depth	0.00
						Rock fragments	0.00
						Hard to reclaim (rock fragments)	0.92
						Too acid	0.95
941C:							
Rawsonville, very rocky, very bouldery-----------	45	Fair		Poor		Fair	
		Depth to bedrock	0.14	Depth to bedrock	0.00	Depth to bedrock	0.14
		Too acid	0.50			Organic matter content low	0.68
		Droughty	0.94			Too acid	0.76
						Slope	0.96
Hogback, very rocky, very bouldery------	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.45			Slope	0.96
		Too acid	0.50			Organic matter content low	0.96
						Too acid	0.99
941D:							
Rawsonville, very rocky, very bouldery-----------	45	Fair		Poor		Poor	
		Depth to bedrock	0.14	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Depth to bedrock	0.14
		Droughty	0.94			Organic matter content low	0.68
						Too acid	0.76

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
941D:							
Hogback, very rocky, very bouldery------	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.45	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Organic matter content low	0.96
						Too acid	0.99
941F:							
Rawsonville, very rocky, very bouldery-----------	45	Fair		Poor		Poor	
		Depth to bedrock	0.14	Slope	0.00	Slope	0.00
		Too acid	0.50	Depth to bedrock	0.00	Depth to bedrock	0.14
		Droughty	0.94			Organic matter content low	0.68
						Too acid	0.76
Hogback, very rocky, very bouldery------	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.45	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Organic matter content low	0.96
						Too acid	0.99
944D:							
Hogback, very rocky, very bouldery------	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.45	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Organic matter content low	0.96
						Too acid	0.99
Knob Lock, very rocky, very bouldery-----------	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00		
		Droughty	0.00	Slope	0.00		
		Too acid	0.50				
944F:							
Hogback, very rocky, very bouldery------	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.45	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Organic matter content low	0.96
						Too acid	0.99
Knob Lock, very rocky, very bouldery-----------	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00		
		Droughty	0.00	Slope	0.00		
		Too acid	0.50				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
948F:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very bouldery	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00		
		Droughty	0.00	Slope	0.00		
		Too acid	0.50				
Hogback, very bouldery	20	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.45	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Organic matter content low	0.96
						Too acid	0.99
971D:							
Esther, rocky, very bouldery	45	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
				Wetness depth	0.80	Organic matter content low	0.78
						Wetness depth	0.80
						Too acid	0.88
						Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.92
Wallface, rocky, very bouldery	30	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Rock fragments	0.00
		Depth to bedrock	0.99			Too acid	0.82
						Depth to bedrock	0.99
975C:							
Andic Cryaquods, very bouldery	45	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.01	Wetness depth	0.01
						Hard to reclaim (rock fragments)	0.32
						Organic matter content low	0.78
						Rock fragments	0.88
						Too acid	0.95
						Slope	0.96
Esther, very bouldery	35	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.80	Organic matter content low	0.78
						Wetness depth	0.80
						Too acid	0.88
						Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.92
						Slope	0.96

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
975D:							
Esther, very bouldery	45	Fair		Fair		Poor	
		Too acid	0.50	Slope	0.50	Slope	0.00
				Wetness depth	0.80	Organic matter content low	0.78
						Wetness depth	0.80
						Too acid	0.88
						Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.92
Andic Cryaquods, very bouldery	35	Fair		Fair		Poor	
		Too acid	0.50	Wetness depth	0.01	Slope	0.00
				Slope	0.50	Wetness depth	0.01
						Hard to reclaim (rock fragments)	0.32
						Organic matter content low	0.78
						Rock fragments	0.88
						Too acid	0.95
992D:							
Wallface, very rocky, very bouldery	45	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Rock fragments	0.00
		Depth to bedrock	0.99			Too acid	0.82
						Depth to bedrock	0.99
Skylight, very rocky, very bouldery	30	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Droughty	0.16			Too acid	0.41
		Too acid	0.50			Too sandy	0.62
		Too sandy	0.62			Organic matter content low	0.99
993F:							
Santanoni, very rocky, very bouldery	45	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Stone content	0.05	Stones	0.06	Too sandy	0.00
		Droughty	0.42			Too acid	0.68
		Too acid	0.50			Depth to bedrock	0.99
		Depth to bedrock	0.99				
Skylight, very rocky, very bouldery	30	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Droughty	0.16			Too acid	0.41
		Too acid	0.50			Too sandy	0.62
		Too sandy	0.62			Organic matter content low	0.99

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
995D:							
Ricker, very rocky, very bouldery	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00		
		Droughty	0.11	Slope	0.00		
		Too acid	0.50				
Couchsachraga, very rocky, very bouldery	25	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Droughty	0.00			Too sandy	0.00
		Too sandy	0.00			Organic matter content high	0.00
		Too acid	0.50			Too acid	0.02
						Rock fragments	0.24
Skylight, very rocky, very bouldery	20	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Droughty	0.16			Too acid	0.41
		Too acid	0.50			Too sandy	0.62
		Too sandy	0.62			Organic matter content low	0.99
995F:							
Ricker, very rocky, very bouldery	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00		
		Droughty	0.11	Slope	0.00		
		Too acid	0.50				
Couchsachraga, very rocky, very bouldery	25	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Droughty	0.00			Too sandy	0.00
		Too sandy	0.00			Organic matter content high	0.00
		Too acid	0.50			Too acid	0.02
						Rock fragments	0.24
Skylight, very rocky, very bouldery	20	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Droughty	0.16			Too acid	0.41
		Too acid	0.50			Too sandy	0.62
		Too sandy	0.62			Organic matter content low	0.99

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
998F:							
Rock outcrop, very bouldery	30	Not rated		Not rated		Not rated	
Ricker, very bouldery	25	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00		
		Droughty	0.11	Slope	0.00		
		Too acid	0.50				
Skylight, very bouldery	20	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Droughty	0.16			Too acid	0.41
		Too acid	0.50			Too sandy	0.62
		Too sandy	0.62			Organic matter content low	0.99
AdA:							
Adams	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
AdB:							
Adams	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
AdC:							
Adams	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.63
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
AdD:							
Adams	85	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.50	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AdE:							
Adams	85	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
AkA:							
Adirondack, very bouldery	85	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.01			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
AkB:							
Adirondack, very bouldery	85	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.01			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
AmB:							
Amenia	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.14	Wetness depth	0.14
		Droughty	0.14			Rock fragments	0.88
		Carbonate content	0.92				
AmC:							
Amenia	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.14	Wetness depth	0.14
		Droughty	0.14			Slope	0.63
		Carbonate content	0.92			Rock fragments	0.88
BcB:							
Becket	85	Fair		Fair		Fair	
		Too acid	0.20	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
		Droughty	0.73			Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
BcC:							
Becket	85	Fair		Fair		Fair	
		Too acid	0.20	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
		Droughty	0.73			Rock fragments	0.50
						Slope	0.63
						Too acid	0.88
						Wetness depth	0.89

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
BeB:							
Becket, very bouldery-----------	85	Fair		Fair		Fair	
		Too acid	0.20	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
		Droughty	0.73			Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
BeC:							
Becket, very bouldery-----------	85	Fair		Fair		Fair	
		Too acid	0.20	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
		Droughty	0.73			Rock fragments	0.50
						Slope	0.63
						Too acid	0.88
						Wetness depth	0.89
BeD:							
Becket, very bouldery-----------	85	Fair		Poor		Poor	
		Too acid	0.20	Slope	0.00	Slope	0.00
		Droughty	0.73	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
						Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
BeF:							
Becket, very bouldery-----------	85	Fair		Poor		Poor	
		Too acid	0.20	Slope	0.00	Slope	0.00
		Droughty	0.73	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
						Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
BkC:							
Becket, rocky, very bouldery-----------	45	Fair		Fair		Fair	
		Too acid	0.20	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
		Droughty	0.73			Rock fragments	0.50
						Slope	0.63
						Too acid	0.88
						Wetness depth	0.89
Tunbridge, rocky, very bouldery------	30	Fair		Poor		Fair	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Depth to bedrock	0.29
		Too acid	0.50			Slope	0.63
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
BkD:							
Becket, rocky, very bouldery	45	Fair		Poor		Poor	
		Too acid	0.20	Slope	0.00	Slope	0.00
		Droughty	0.73	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.32
						Rock fragments	0.50
						Too acid	0.88
						Wetness depth	0.89
Tunbridge, rocky, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Depth to bedrock	0.29
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
BoB:							
Bombay	85	Fair		Fair		Poor	
		Organic matter content low	0.02	Wetness depth	0.14	Rock fragments	0.00
		Too acid	0.99			Wetness depth	0.14
						Hard to reclaim (rock fragments)	0.98
BuA:							
Bucksport	85	Poor		Poor		Not rated	
		Too acid	0.00	Wetness depth	0.00		
BvA:							
Burnt Vly	85	Poor		Poor		Not rated	
		Too acid	0.00	Wetness depth	0.00		
		Organic matter content low	0.18				
CaA:							
Catden	85	Poor		Poor		Not rated	
		Wind erosion	0.00	Wetness depth	0.00		
		Too acid	0.99				
CbA:							
Colton, very bouldery	85	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.00
		Organic matter content low	0.50				
CbB:							
Colton, very bouldery	85	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.00
		Organic matter content low	0.50				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
CbC:							
Colton, very bouldery	85	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.00
		Organic matter content low	0.50			Slope	0.63
CbD:							
Colton, very bouldery	85	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Droughty	0.00			Rock fragments	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.50			Too sandy	0.00
CgB:							
Cayuga	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.18	Wetness depth	0.18
		Water erosion	0.68	Shrink-swell	0.82	Rock fragments	0.50
		Too acid	0.84				
CgC:							
Cayuga	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.18	Wetness depth	0.18
		Water erosion	0.68	Shrink-swell	0.82	Rock fragments	0.50
		Too acid	0.84			Slope	0.63
ChB:							
Champlain	85	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00				
		Organic matter content low	0.01				
		Droughty	0.03				
		Too acid	0.80				
ChC:							
Champlain	85	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Slope	0.63
		Organic matter content low	0.01				
		Droughty	0.03				
		Too acid	0.80				
ChD:							
Champlain	85	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.01				
		Droughty	0.03				
		Too acid	0.80				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
ChE:							
Champlain	85	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.01				
		Droughty	0.03				
		Too acid	0.80				
CkA:							
Charles	85	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.61			Too acid	0.99
		Water erosion	0.90				
ClB:							
Charlton	85	Fair		Good		Fair	
		Organic matter content low	0.02			Rock fragments	0.50
		Too acid	0.74				
ClC:							
Charlton	85	Fair		Good		Fair	
		Organic matter content low	0.02			Rock fragments	0.50
		Too acid	0.74			Slope	0.63
ClD:							
Charlton	85	Fair		Fair		Poor	
		Organic matter content low	0.02	Slope	0.50	Slope	0.00
		Too acid	0.74			Rock fragments	0.50
CnC:							
Charlton, rocky, very stony	45	Fair		Good		Fair	
		Organic matter content low	0.02			Rock fragments	0.50
		Too acid	0.74			Slope	0.63
Chatfield, rocky, very stony	30	Fair		Poor		Poor	
		Droughty	0.33	Depth to bedrock	0.00	Rock fragments	0.00
		Too acid	0.61			Slope	0.63
		Depth to bedrock	0.71			Depth to bedrock	0.71
CnD:							
Charlton, rocky, very stony	45	Fair		Poor		Poor	
		Organic matter content low	0.02	Slope	0.00	Slope	0.00
		Too acid	0.74			Rock fragments	0.50
Chatfield, rocky, very stony	30	Fair		Poor		Poor	
		Droughty	0.33	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.61	Slope	0.00	Rock fragments	0.00
		Depth to bedrock	0.71			Depth to bedrock	0.71

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
CoB:							
Chatfield, very rocky, very stony	45	Fair		Poor		Poor	
		Droughty	0.33	Depth to bedrock	0.00	Rock fragments	0.00
		Too acid	0.61			Depth to bedrock	0.71
		Depth to bedrock	0.71				
Hollis, very rocky, very stony	30	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Rock fragments	0.00
		Too acid	0.50			Too acid	0.99
CoC:							
Chatfield, very rocky, very stony	45	Fair		Poor		Poor	
		Droughty	0.33	Depth to bedrock	0.00	Rock fragments	0.00
		Too acid	0.61			Slope	0.63
		Depth to bedrock	0.71			Depth to bedrock	0.71
Hollis, very rocky, very stony	30	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Rock fragments	0.00
		Too acid	0.50			Slope	0.63
						Too acid	0.99
CoD:							
Chatfield, very rocky, very stony	45	Fair		Poor		Poor	
		Droughty	0.33	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.61	Slope	0.00	Rock fragments	0.00
		Depth to bedrock	0.71			Depth to bedrock	0.71
Hollis, very rocky, very stony	30	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.00
						Too acid	0.99
CoF:							
Chatfield, very rocky, very stony	45	Fair		Poor		Poor	
		Droughty	0.33	Slope	0.00	Slope	0.00
		Too acid	0.61	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.71			Depth to bedrock	0.71
Hollis, very rocky, very stony	30	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.00
						Too acid	0.99
CpB:							
Churchville	85	Poor		Poor		Poor	
		Too clayey	0.00	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.00	Shrink-swell	0.82	Too clayey	0.00
		Organic matter content low	0.02				
		Water erosion	0.68				
		Carbonate content	0.92				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
CqA:							
Claverack-----------	85	Poor		Poor		Poor	
		Wind erosion	0.00	Low strength	0.00	Too clayey	0.00
		Too clayey	0.00	Wetness depth	0.24	Wetness depth	0.24
		Organic matter content low	0.02	Shrink-swell	0.29		
		Water erosion	0.68				
		Too acid	0.92				
CqB:							
Claverack-----------	85	Poor		Poor		Poor	
		Wind erosion	0.00	Low strength	0.00	Too clayey	0.00
		Too clayey	0.00	Wetness depth	0.24	Wetness depth	0.24
		Organic matter content low	0.02	Shrink-swell	0.29		
		Water erosion	0.68				
		Too acid	0.92				
CrB:							
Collamer------------	85	Fair		Poor		Fair	
		Organic matter content low	0.02	Low strength	0.00	Wetness depth	0.24
		Water erosion	0.68	Wetness depth	0.24		
				Shrink-swell	0.98		
CsA:							
Colton--------------	85	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.00
		Organic matter content low	0.50				
CsB:							
Colton--------------	85	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.00
		Organic matter content low	0.50				
CsC:							
Colton--------------	85	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.00
		Organic matter content low	0.50			Slope	0.63
CsD:							
Colton--------------	85	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.50	Slope	0.00
		Droughty	0.00			Rock fragments	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.50			Too sandy	0.00

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
CsE:							
Colton	85	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Droughty	0.00			Rock fragments	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.50			Too sandy	0.00
CtA:							
Cornish	85	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.84				
		Water erosion	0.90				
CuA:							
Cosad	85	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.02	Shrink-swell	0.24		
		Water erosion	0.68				
		Too acid	0.92				
CuB:							
Cosad	85	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.02	Shrink-swell	0.24		
		Water erosion	0.68				
		Too acid	0.92				
CvA:							
Covington	85	Poor		Poor		Poor	
		Too clayey	0.00	Wetness depth	0.00	Too clayey	0.00
		Organic matter content low	0.50	Shrink-swell	0.00	Wetness depth	0.00
		Water erosion	0.68	Low strength	0.00		
CwA:							
Croghan	85	Poor		Fair		Poor	
		Wind erosion	0.00	Wetness depth	0.44	Too sandy	0.00
		Too sandy	0.00			Wetness depth	0.44
		Too acid	0.32				
		Droughty	0.50				
		Organic matter content low	0.50				
CwB:							
Croghan	85	Poor		Fair		Poor	
		Wind erosion	0.00	Wetness depth	0.44	Too sandy	0.00
		Too sandy	0.00			Wetness depth	0.44
		Too acid	0.32				
		Droughty	0.50				
		Organic matter content low	0.50				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
DeA:							
Deerfield	85	Poor		Fair		Poor	
		Wind erosion	0.00	Wetness depth	0.27	Too sandy	0.00
		Too sandy	0.00			Wetness depth	0.27
		Droughty	0.02				
		Organic matter content low	0.08				
		Too acid	0.74				
DeB:							
Deerfield	85	Poor		Fair		Poor	
		Wind erosion	0.00	Wetness depth	0.27	Too sandy	0.00
		Too sandy	0.00			Wetness depth	0.27
		Droughty	0.02				
		Organic matter content low	0.08				
		Too acid	0.74				
DpC:							
Depeyster	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.14	Wetness depth	0.14
		Water erosion	0.68			Slope	0.63
		Too acid	0.99				
DpD:							
Depeyster	85	Fair		Fair		Poor	
		Organic matter content low	0.02	Wetness depth	0.14	Slope	0.00
		Water erosion	0.68	Slope	0.50	Wetness depth	0.14
		Too acid	0.99				
DuC:							
Dunkirk	85	Fair		Poor		Fair	
		Organic matter content low	0.02	Low strength	0.00	Too clayey	0.60
		Water erosion	0.68	Shrink-swell	0.94	Slope	0.63
		Too clayey	0.92				
		Too acid	0.97				
DuD:							
Dunkirk	85	Fair		Poor		Poor	
		Organic matter content low	0.02	Low strength	0.00	Slope	0.00
		Water erosion	0.68	Slope	0.50	Too clayey	0.60
		Too clayey	0.92	Shrink-swell	0.94		
		Too acid	0.97				
DuE:							
Dunkirk	85	Fair		Poor		Poor	
		Organic matter content low	0.02	Slope	0.00	Slope	0.00
		Water erosion	0.68	Low strength	0.00	Too clayey	0.60
		Too clayey	0.92	Shrink-swell	0.94		
		Too acid	0.97				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
DxB:							
Duxbury	85	Poor		Good		Poor	
		Too sandy	0.00			Rock fragments	0.00
		Organic matter content low	0.50			Too sandy	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.08
ElB:							
Elmridge	85	Fair		Poor		Fair	
		Organic matter content low	0.50	Low strength	0.00	Wetness depth	0.27
		Too acid	0.74	Wetness depth	0.27		
		Water erosion	0.90	Shrink-swell	0.49		
FaD:							
Farmington, very rocky, very stony	85	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.61			Rock fragments	0.12
FcB:							
Factoryville	45	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.86	Too sandy	0.36
		Organic matter content low	0.08			Wetness depth	0.86
		Too sandy	0.36				
		Droughty	0.43				
		Too acid	0.74				
Colonie, calcareous substratum	30	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00				
		Droughty	0.20				
		Too acid	0.84				
FcC:							
Factoryville	45	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.86	Too sandy	0.36
		Organic matter content low	0.08			Slope	0.63
		Too sandy	0.36			Wetness depth	0.86
		Droughty	0.43				
		Too acid	0.74				
Colonie, calcareous substratum	30	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Slope	0.63
		Droughty	0.20				
		Too acid	0.84				
FcD:							
Factoryville	45	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Organic matter content low	0.08	Wetness depth	0.86	Too sandy	0.36
		Too sandy	0.36			Wetness depth	0.86
		Droughty	0.43				
		Too acid	0.74				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
FcD:							
Colonie, calcareous substratum	30	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Too sandy	0.00			Too sandy	0.00
		Droughty	0.20				
		Too acid	0.84				
FdF:							
Factoryville	45	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.08	Wetness depth	0.86	Too sandy	0.36
		Too sandy	0.36			Wetness depth	0.86
		Droughty	0.43				
		Too acid	0.74				
Dunkirk	30	Fair		Poor		Poor	
		Organic matter content low	0.02	Slope	0.00	Slope	0.00
		Water erosion	0.68	Low strength	0.00	Too clayey	0.60
		Too clayey	0.92	Shrink-swell	0.94		
		Too acid	0.97				
FgB:							
Farmington, very rocky, very stony	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Rock fragments	0.12
		Too acid	0.61			Slope	0.96
Galway, very rocky, very stony	30	Fair		Poor		Poor	
		Organic matter content low	0.02	Depth to bedrock	0.00	Rock fragments	0.00
		Droughty	0.09			Depth to bedrock	0.90
		Depth to bedrock	0.90			Slope	0.96
FkF:							
Farmington, very stony	60	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.61			Rock fragments	0.12
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
FnB:							
Fernlake, very bouldery	85	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.28
		Too sandy	0.28			Hard to reclaim (rock fragments)	0.50
		Too acid	0.32			Rock fragments	0.88
		Organic matter content low	0.50			Too acid	0.88
		Droughty	0.97				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
FnC:							
Fernlake, very bouldery	85	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.28
		Too sandy	0.28			Hard to reclaim (rock fragments)	0.50
		Too acid	0.32			Slope	0.63
		Organic matter content low	0.50			Rock fragments	0.88
		Droughty	0.97			Too acid	0.88
FnD:							
Fernlake, very bouldery	85	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.28			Too sandy	0.28
		Too acid	0.32			Hard to reclaim (rock fragments)	0.50
		Organic matter content low	0.50			Rock fragments	0.88
		Droughty	0.97			Too acid	0.88
FnF:							
Fernlake, very bouldery	85	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.28			Too sandy	0.28
		Too acid	0.32			Hard to reclaim (rock fragments)	0.50
		Organic matter content low	0.50			Rock fragments	0.88
		Droughty	0.97			Too acid	0.88
FrB:							
Factoryville	85	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.86	Too sandy	0.36
		Organic matter content low	0.08			Wetness depth	0.86
		Too sandy	0.36				
		Droughty	0.43				
		Too acid	0.74				
FuA:							
Fluvaquents, frequently flooded	45	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.97			Hard to reclaim (rock fragments)	0.00
		Water erosion	0.99				
Udifluvents, frequently flooded	30	Poor		Good		Poor	
		Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.18				
		Too acid	0.92				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GeB:							
Georgia	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.24	Wetness depth	0.24
		Too acid	0.74			Rock fragments	0.50
						Hard to reclaim (rock fragments)	0.68
GeC:							
Georgia	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.24	Wetness depth	0.24
		Too acid	0.74			Rock fragments	0.50
						Slope	0.63
						Hard to reclaim (rock fragments)	0.68
GoA:							
Gougeville	85	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Too sandy	0.00
		Wind erosion	0.00			Wetness depth	0.00
		Organic matter content low	0.00				
		Too acid	0.74				
HaB:							
Hailesboro	85	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
		Too clayey	0.92	Shrink-swell	0.99	Too clayey	0.60
		Too acid	0.97				
HcB:							
Howard	85	Fair		Fair		Poor	
		Organic matter content low	0.02	Cobble content	0.08	Hard to reclaim (rock fragments)	0.00
		Droughty	0.04			Rock fragments	0.00
		Too sandy	0.38			Too sandy	0.38
		Cobble content	0.83				
		Too acid	0.92				
HcC:							
Howard	85	Fair		Fair		Poor	
		Organic matter content low	0.02	Cobble content	0.08	Hard to reclaim (rock fragments)	0.00
		Droughty	0.04			Rock fragments	0.00
		Too sandy	0.38			Too sandy	0.38
		Cobble content	0.83			Slope	0.63
		Too acid	0.92				
HcD:							
Howard	85	Fair		Fair		Poor	
		Organic matter content low	0.02	Cobble content	0.08	Slope	0.00
		Droughty	0.04	Slope	0.50	Hard to reclaim (rock fragments)	0.00
		Too sandy	0.38			Rock fragments	0.00
		Cobble content	0.83			Too sandy	0.38
		Too acid	0.92				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
HdB:							
Hartland------------	85	Fair		Good		Good	
		Organic matter content low	0.50				
		Water erosion	0.68				
		Too acid	0.99				
HgB:							
Howard--------------	85	Fair		Good		Poor	
		Organic matter content low	0.02			Hard to reclaim (rock fragments)	0.00
		Droughty	0.04			Rock fragments	0.00
		Too sandy	0.38			Too sandy	0.38
		Too acid	0.92				
HlB:							
Howard--------------	85	Fair		Fair		Poor	
		Organic matter content low	0.02	Cobble content	0.83	Rock fragments	0.00
		Too acid	0.46				
		Droughty	0.92				
HlC:							
Howard--------------	85	Fair		Fair		Poor	
		Organic matter content low	0.02	Cobble content	0.83	Rock fragments	0.00
		Too acid	0.46			Slope	0.63
		Droughty	0.92				
HmB:							
Howard--------------	85	Fair		Good		Poor	
		Organic matter content low	0.02			Rock fragments	0.00
		Too acid	0.46				
		Droughty	0.92				
HnC:							
Hermon, very bouldery-----------	85	Poor		Fair		Poor	
		Wind erosion	0.00	Stones	0.99	Rock fragments	0.00
		Too sandy	0.10			Hard to reclaim (rock fragments)	0.00
		Droughty	0.48			Too sandy	0.10
		Too acid	0.50			Slope	0.63
		Organic matter content low	0.50			Too acid	0.95
		Stone content	0.94				
HnD:							
Hermon, very bouldery-----------	85	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.10	Stones	0.99	Rock fragments	0.00
		Droughty	0.48			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too sandy	0.10
		Organic matter content low	0.50			Too acid	0.95
		Stone content	0.94				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
HrF:							
Hogback, very rocky, very bouldery------	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.45	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Organic matter content low	0.96
						Too acid	0.99
Knob Lock, very rocky, very bouldery-----------	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Organic matter content high	0.00
		Too acid	0.50			Depth to bedrock	0.00
						Too acid	0.08
HsD:							
Hollis, very stony--	45	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.00
						Too acid	0.99
Rock outcrop, very stony--------------	30	Not rated		Not rated		Not rated	
HsF:							
Hollis, very stony--	45	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.00
						Too acid	0.99
Rock outcrop, very stony--------------	30	Not rated		Not rated		Not rated	
KaB:							
Kalurah-------------	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.38	Rock fragments	0.12
		Too acid	0.84			Wetness depth	0.38
						Hard to reclaim (rock fragments)	0.88
KaC:							
Kalurah-------------	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.38	Rock fragments	0.12
		Too acid	0.84			Wetness depth	0.38
						Slope	0.63
						Hard to reclaim (rock fragments)	0.88
KgB:							
Kalurah, very stony-	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.38	Rock fragments	0.12
		Too acid	0.84			Wetness depth	0.38
						Hard to reclaim (rock fragments)	0.88

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
KgC:							
Kalurah, very stony	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.38	Rock fragments	0.12
		Too acid	0.84			Wetness depth	0.38
						Slope	0.63
						Hard to reclaim (rock fragments)	0.88
KyA:							
Kingsbury	85	Poor		Poor		Poor	
		Too clayey	0.00	Wetness depth	0.00	Too clayey	0.00
		Organic matter content low	0.02	Shrink-swell	0.00	Wetness depth	0.00
		Water erosion	0.68	Low strength	0.00		
KyB:							
Kingsbury	85	Poor		Poor		Poor	
		Too clayey	0.00	Wetness depth	0.00	Too clayey	0.00
		Organic matter content low	0.02	Shrink-swell	0.00	Wetness depth	0.00
		Water erosion	0.68	Low strength	0.00		
LnA:							
Livingston	85	Poor		Poor		Poor	
		Too clayey	0.00	Wetness depth	0.00	Too clayey	0.00
		Organic matter content low	0.50	Shrink-swell	0.00	Wetness depth	0.00
		Water erosion	0.68	Low strength	0.00		
LvA:							
Lovewell	85	Fair		Fair		Fair	
		Too acid	0.32	Wetness depth	0.24	Wetness depth	0.24
		Organic matter content low	0.50				
		Water erosion	0.68				
LyD:							
Lyman, very rocky, very bouldery	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88
Knob Lock, very rocky, very bouldery	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Organic matter content high	0.00
		Too acid	0.50			Depth to bedrock	0.00
						Too acid	0.08
LyF:							
Lyman, very rocky, very bouldery	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
LyF:							
Knob Lock, very rocky, very bouldery	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Organic matter content high	0.00
		Too acid	0.50			Depth to bedrock	0.00
						Too acid	0.08
MaB:							
Malone	85	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.18			Rock fragments	0.88
MbB:							
Malone, very stony	85	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.18			Rock fragments	0.88
McA:							
Massena	85	Fair		Poor		Poor	
		Organic matter content low	0.18	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.99			Rock fragments	0.12
McB:							
Massena	85	Fair		Poor		Poor	
		Organic matter content low	0.18	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.99			Rock fragments	0.12
MdA:							
Medomak	85	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.97				
MhB:							
Monadnock	85	Fair		Good		Fair	
		Too acid	0.50			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
MhC:							
Monadnock	85	Fair		Good		Fair	
		Too acid	0.50			Slope	0.63
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
MkB:							
Monadnock, very bouldery	85	Fair		Good		Fair	
		Too acid	0.50			Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
MkC:							
Monadnock, very bouldery	85	Fair		Good		Fair	
		Too acid	0.50			Slope	0.63
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
MkD:							
Monadnock, very bouldery	85	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
MkF:							
Monadnock, very bouldery	85	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
MmF:							
Monadnock, bouldery	55	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
Adams	25	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Organic matter content low	0.08				
		Too acid	0.50				
		Droughty	0.81				
MnC:							
Monadnock, rocky, very bouldery	45	Fair		Good		Fair	
		Too acid	0.50			Slope	0.63
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
Tunbridge, rocky, very bouldery	30	Fair		Poor		Fair	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Depth to bedrock	0.29
		Too acid	0.50			Slope	0.63
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
MnD:							
Monadnock, rocky, very bouldery	45	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
Tunbridge, rocky, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Depth to bedrock	0.29
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
MnF:							
Monadnock, rocky, very bouldery	45	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
						Hard to reclaim (rock fragments)	0.68
						Too acid	0.95
						Rock fragments	0.99
Tunbridge, rocky, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.29	Slope	0.00	Slope	0.00
		Too acid	0.50	Depth to bedrock	0.00	Depth to bedrock	0.29
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
MoA:							
Mooers	85	Poor		Fair		Poor	
		Wind erosion	0.00	Wetness depth	0.38	Too sandy	0.00
		Too sandy	0.00			Wetness depth	0.38
		Droughty	0.29				
		Too acid	0.46				
		Organic matter content low	0.50				
MuC:							
Mundalite, very bouldery	85	Poor		Fair		Poor	
		Organic matter content low	0.00	Wetness depth	0.62	Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Wetness depth	0.62
						Slope	0.63
						Rock fragments	0.79
						Too acid	0.88
MuD:							
Mundalite, very bouldery	85	Poor		Poor		Poor	
		Organic matter content low	0.00	Slope	0.00	Slope	0.00
		Too acid	0.50	Wetness depth	0.62	Hard to reclaim (rock fragments)	0.00
						Wetness depth	0.62
						Rock fragments	0.79
						Too acid	0.88

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
MwC:							
Mundalite, rocky, very bouldery------	45	Poor		Fair		Poor	
		Organic matter content low	0.00	Wetness depth	0.62	Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Wetness depth	0.62
						Rock fragments	0.79
						Too acid	0.88
						Slope	0.96
Rawsonville, rocky, very bouldery------	30	Fair		Poor		Fair	
		Depth to bedrock	0.14	Depth to bedrock	0.00	Depth to bedrock	0.14
		Too acid	0.50			Organic matter content low	0.68
		Droughty	0.94			Too acid	0.76
						Slope	0.96
MwD:							
Mundalite, rocky, very bouldery------	45	Poor		Poor		Poor	
		Organic matter content low	0.00	Slope	0.00	Slope	0.00
		Too acid	0.50	Wetness depth	0.62	Hard to reclaim (rock fragments)	0.00
						Wetness depth	0.62
						Rock fragments	0.79
						Too acid	0.88
Rawsonville, rocky, very bouldery------	30	Fair		Poor		Poor	
		Depth to bedrock	0.14	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Depth to bedrock	0.14
		Droughty	0.94			Organic matter content low	0.68
						Too acid	0.76
NaA:							
Naumburg------------	85	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too sandy	0.00			Too sandy	0.00
		Too acid	0.01			Too acid	0.88
		Organic matter content low	0.50				
		Droughty	0.74				
NeB:							
Nellis--------------	85	Fair		Good		Fair	
		Organic matter content low	0.02			Rock fragments	0.88
		Too acid	0.99				
NeC:							
Nellis--------------	85	Fair		Good		Fair	
		Organic matter content low	0.02			Slope	0.63
		Too acid	0.99			Rock fragments	0.88

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
NeD:							
Nellis	85	Fair		Fair		Poor	
		Organic matter content low	0.02	Slope	0.50	Slope	0.00
		Too acid	0.99			Rock fragments	0.88
NgA:							
Niagara	85	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.68	Low strength	0.00	Too clayey	0.60
		Too clayey	0.92	Shrink-swell	0.84		
NgB:							
Niagara	85	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.68	Low strength	0.00	Too clayey	0.60
		Too clayey	0.92	Shrink-swell	0.84		
NvB:							
Nicholville	85	Fair		Fair		Fair	
		Too acid	0.46	Wetness depth	0.14	Wetness depth	0.14
		Organic matter content low	0.50				
OmA:							
Occum	85	Fair		Good		Good	
		Organic matter content low	0.18				
		Droughty	0.87				
		Too acid	0.92				
OwA:							
Ondawa	85	Fair		Good		Fair	
		Organic matter content low	0.18			Too acid	0.99
		Too acid	0.61				
Pc:							
Pits, quarry	85	Not rated		Not rated		Not rated	
Pd:							
Pits, sand and gravel	85	Not rated		Not rated		Not rated	
PfB:							
Pittsfield	85	Fair		Good		Fair	
		Too acid	0.32			Rock fragments	0.12
		Organic matter content low	0.50			Hard to reclaim (rock fragments)	0.98
PfC:							
Pittsfield	85	Fair		Good		Fair	
		Too acid	0.32			Rock fragments	0.12
		Organic matter content low	0.50			Slope	0.63
						Hard to reclaim (rock fragments)	0.98

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
PfD:							
Pittsfield----------	85	Fair		Fair		Poor	
		Too acid	0.32	Slope	0.50	Slope	0.00
		Organic matter content low	0.50			Rock fragments	0.12
						Hard to reclaim (rock fragments)	0.98
PfE:							
Pittsfield----------	85	Fair		Poor		Poor	
		Too acid	0.32	Slope	0.00	Slope	0.00
		Organic matter content low	0.50			Rock fragments	0.12
						Hard to reclaim (rock fragments)	0.98
PkA:							
Pleasant Lake-------	85	Poor		Poor		Not rated	
		Too acid	0.00	Wetness depth	0.00		
PlB:							
Pittsfield, rocky, very stony---------	45	Fair		Good		Fair	
		Too acid	0.32			Rock fragments	0.12
		Organic matter content low	0.50			Hard to reclaim (rock fragments)	0.98
Chatfield, rocky, very stony---------	30	Fair		Poor		Poor	
		Droughty	0.33	Depth to bedrock	0.00	Rock fragments	0.00
		Too acid	0.61			Depth to bedrock	0.71
		Depth to bedrock	0.71				
PlC:							
Pittsfield, rocky, very stony---------	45	Fair		Good		Fair	
		Too acid	0.32			Rock fragments	0.12
		Organic matter content low	0.50			Slope	0.63
						Hard to reclaim (rock fragments)	0.98
Chatfield, rocky, very stony---------	30	Fair		Poor		Poor	
		Droughty	0.33	Depth to bedrock	0.00	Rock fragments	0.00
		Too acid	0.61			Slope	0.63
		Depth to bedrock	0.71			Depth to bedrock	0.71
PlD:							
Pittsfield, rocky, very stony---------	45	Fair		Poor		Poor	
		Too acid	0.32	Slope	0.00	Slope	0.00
		Organic matter content low	0.50			Rock fragments	0.12
						Hard to reclaim (rock fragments)	0.98

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PlD:							
Chatfield, rocky, very stony	30	Fair		Poor		Poor	
		Droughty	0.33	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.61	Slope	0.00	Rock fragments	0.00
		Depth to bedrock	0.71			Depth to bedrock	0.71
PlF:							
Pittsfield, rocky, very stony	45	Fair		Poor		Poor	
		Too acid	0.32	Slope	0.00	Slope	0.00
		Organic matter content low	0.50			Rock fragments	0.12
						Hard to reclaim (rock fragments)	0.98
Chatfield, rocky, very stony	30	Fair		Poor		Poor	
		Droughty	0.33	Slope	0.00	Slope	0.00
		Too acid	0.61	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.71			Depth to bedrock	0.71
PoA:							
Podunk	85	Fair		Fair		Fair	
		Too sandy	0.09	Wetness depth	0.14	Too sandy	0.09
		Organic matter content low	0.18			Wetness depth	0.14
		Too acid	0.61			Too acid	0.99
		Water erosion	0.99				
PrA:							
Pootatuck	85	Fair		Fair		Fair	
		Too sandy	0.09	Wetness depth	0.24	Too sandy	0.09
		Organic matter content low	0.18			Wetness depth	0.24
		Too acid	0.84				
PtB:							
Pyrities	85	Fair		Good		Fair	
		Organic matter content low	0.02			Rock fragments	0.88
		Too acid	0.92				
PtC:							
Pyrities	85	Fair		Good		Fair	
		Organic matter content low	0.02			Slope	0.63
		Too acid	0.92			Rock fragments	0.88
PtD:							
Pyrities	85	Fair		Fair		Poor	
		Organic matter content low	0.02	Slope	0.50	Slope	0.00
		Too acid	0.92			Rock fragments	0.88
PuC:							
Pyrities, very stony	85	Fair		Good		Fair	
		Organic matter content low	0.02			Slope	0.63
		Too acid	0.92			Rock fragments	0.88

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
PuD:							
Pyrities, very stony	85	Fair		Poor		Poor	
		Organic matter content low	0.02	Slope	0.00	Slope	0.00
		Too acid	0.92			Rock fragments	0.88
PwC:							
Pyrities, very stony	45	Fair		Good		Fair	
		Organic matter content low	0.02			Slope	0.63
		Too acid	0.92			Rock fragments	0.88
Nehasne, very stony-	30	Poor		Poor		Fair	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.16
		Depth to bedrock	0.16			Slope	0.63
		Too acid	0.99			Rock fragments	0.88
PwD:							
Pyrities, very stony	45	Fair		Poor		Poor	
		Organic matter content low	0.02	Slope	0.00	Slope	0.00
		Too acid	0.92			Rock fragments	0.88
Nehasne, very stony-	30	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.16	Slope	0.00	Depth to bedrock	0.16
		Too acid	0.99			Rock fragments	0.88
PyC:							
Pyrities------------	45	Fair		Good		Fair	
		Organic matter content low	0.02			Slope	0.63
		Too acid	0.92			Rock fragments	0.88
Nehasne-------------	30	Poor		Poor		Fair	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.16
		Depth to bedrock	0.16			Slope	0.63
		Too acid	0.99			Rock fragments	0.88
PyD:							
Pyrities------------	45	Fair		Fair		Poor	
		Organic matter content low	0.02	Slope	0.50	Slope	0.00
		Too acid	0.92			Rock fragments	0.88
Nehasne-------------	30	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.16	Slope	0.50	Depth to bedrock	0.16
		Too acid	0.99			Rock fragments	0.88
RaC:							
Rawsonville, very rocky, very bouldery-----------	45	Fair		Poor		Fair	
		Depth to bedrock	0.14	Depth to bedrock	0.00	Depth to bedrock	0.14
		Too acid	0.50			Slope	0.63
		Droughty	0.94			Organic matter content low	0.68
						Too acid	0.76

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
RaC:							
Hogback, very rocky, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.45			Slope	0.63
		Too acid	0.50			Organic matter content low	0.96
						Too acid	0.99
RaD:							
Rawsonville, very rocky, very bouldery	45	Fair		Poor		Poor	
		Depth to bedrock	0.14	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Depth to bedrock	0.14
		Droughty	0.94			Organic matter content low	0.68
						Too acid	0.76
Hogback, very rocky, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.45	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Organic matter content low	0.96
						Too acid	0.99
RaF:							
Rawsonville, very rocky, very bouldery	45	Fair		Poor		Poor	
		Depth to bedrock	0.14	Slope	0.00	Slope	0.00
		Too acid	0.50	Depth to bedrock	0.00	Depth to bedrock	0.14
		Droughty	0.94			Organic matter content low	0.68
						Too acid	0.76
Hogback, very rocky, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.45	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Organic matter content low	0.96
						Too acid	0.99
RmA:							
Rippowam	85	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.84			Hard to reclaim (rock fragments)	0.00
RpF:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
RpF:							
Knob Lock, very rocky, very bouldery	30	Poor		Poor		Not rated	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Organic matter content high	0.00
		Too acid	0.50			Depth to bedrock	0.00
						Too acid	0.08
RpF:							
Lyman, very rocky, very bouldery	20	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88
RsA:							
Roundabout	85	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.68				
		Too acid	0.95				
RuA:							
Rumney	85	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.74			Hard to reclaim (rock fragments)	0.00
RyA:							
Rumney	45	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.74			Hard to reclaim (rock fragments)	0.00
Burnt Vly	30	Poor		Poor		Not rated	
		Too acid	0.00	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.18			Organic matter content high	0.00
SeA:							
Searsport	85	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.46			Too sandy	0.00
		Organic matter content low	0.50				
SkB:							
Skerry	85	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.38	Wetness depth	0.38
		Droughty	0.99			Rock fragments	0.50

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
SnB:							
Sunapee, very bouldery	85	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.62	Rock fragments	0.50
						Wetness depth	0.62
						Too acid	0.95
						Hard to reclaim (rock fragments)	0.98
SpB:							
Sunapee	85	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.62	Rock fragments	0.50
						Wetness depth	0.62
						Too acid	0.95
						Hard to reclaim (rock fragments)	0.98
SrB:							
Skerry, very bouldery	85	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.38	Wetness depth	0.38
		Droughty	0.99			Rock fragments	0.50
SrC:							
Skerry, very bouldery	85	Fair		Fair		Fair	
		Too acid	0.50	Wetness depth	0.38	Wetness depth	0.38
		Droughty	0.99			Rock fragments	0.50
						Slope	0.63
StA:							
Stafford	85	Fair		Poor		Poor	
		Organic matter content low	0.08	Wetness depth	0.00	Wetness depth	0.00
		Too sandy	0.38			Too sandy	0.38
		Droughty	0.64				
		Too acid	0.99				
SuA:							
Sun	85	Fair		Poor		Poor	
		Organic matter content low	0.18	Wetness depth	0.00	Wetness depth	0.00
						Rock fragments	0.12
TaA:							
Tahawus, very bouldery	85	Fair		Poor		Poor	
		Too sandy	0.15	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.18			Rock fragments	0.00
		Too acid	0.50			Too sandy	0.15
						Hard to reclaim (rock fragments)	0.88
TeA:							
Typic Endoaquolls, very stony	85	Fair		Poor		Poor	
		Organic matter content low	0.12	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.97			Rock fragments	0.88

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
ToA:							
Tonawanda-----------	85	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.68				
		Too acid	0.97				
TuC:							
Tunbridge, very rocky, very bouldery-----------	45	Fair		Poor		Fair	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Depth to bedrock	0.29
		Too acid	0.50			Slope	0.63
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
Lyman, very rocky, very bouldery------	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Slope	0.63
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88
TuD:							
Tunbridge, very rocky, very bouldery-----------	45	Fair		Poor		Poor	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Depth to bedrock	0.29
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
Lyman, very rocky, very bouldery------	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88
TuF:							
Tunbridge, very rocky, very bouldery-----------	45	Fair		Poor		Poor	
		Depth to bedrock	0.29	Slope	0.00	Slope	0.00
		Too acid	0.50	Depth to bedrock	0.00	Depth to bedrock	0.29
		Droughty	0.88			Rock fragments	0.88
						Too acid	0.95
Lyman, very rocky, very bouldery------	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.88
						Rock fragments	0.88
UlC:							
Udorthents----------	100	Not rated		Not rated		Not rated	

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
UmF:							
Udorthents, mine spoil	100	Not rated		Not rated		Not rated	
VeB:							
Vergennes	85	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Organic matter content low	0.02	Low strength	0.00	Wetness depth	0.27
		Water erosion	0.68	Wetness depth	0.27		
VeC:							
Vergennes	85	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Organic matter content low	0.02	Low strength	0.00	Wetness depth	0.27
		Water erosion	0.68	Wetness depth	0.27	Slope	0.63
VeD:							
Vergennes	85	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Slope	0.00
		Organic matter content low	0.02	Low strength	0.00	Too clayey	0.00
		Water erosion	0.68	Wetness depth	0.27	Wetness depth	0.27
				Slope	0.50		
VeE:							
Vergennes	85	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.02	Shrink-swell	0.00	Too clayey	0.00
		Water erosion	0.68	Low strength	0.00	Wetness depth	0.27
				Wetness depth	0.27		
W:							
Water	100	Not rated		Not rated		Not rated	
WeA:							
Wegatchie	85	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.68	Shrink-swell	0.91		
WlA:							
Whallonsburg	85	Fair		Poor		Not rated	
		Too acid	0.97	Wetness depth	0.00		
				Low strength	0.00		
				Shrink-swell	0.97		
WnA:							
Windsor	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Droughty	0.05				
		Organic matter content low	0.08				
		Too acid	0.92				

Table 17.—Source of Reclamation Material, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WnB:							
Windsor-------------	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Droughty	0.05				
		Organic matter content low	0.08				
		Too acid	0.92				
WnC:							
Windsor-------------	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.63
		Droughty	0.05				
		Organic matter content low	0.08				
		Too acid	0.92				
WnD:							
Windsor-------------	85	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.50	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Droughty	0.05				
		Organic matter content low	0.08				
		Too acid	0.92				
WnE:							
Windsor-------------	85	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Droughty	0.05				
		Organic matter content low	0.08				
		Too acid	0.92				
WoA:							
Wonsqueak-----------	85	Poor		Poor		Not rated	
		Wind erosion	0.00	Wetness depth	0.00		
		Organic matter content low	0.18				

Table 18.—Ponds and Embankments

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
10A:							
Pleasant Lake	45	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Burnt Vly	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
13A:							
Burnt Vly	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
Rumney	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
Pleasant Lake	20	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
29C:							
Burnt Vly	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
Colton	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Rumney	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
113A:							
Ondawa	45	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Rumney	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
123A:							
Lovewell	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
Cornish	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
350B:							
Duxbury, very stony	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
363A:							
Adams	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
363B:							
Adams	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
363D:							
Adams	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
363F:							
Adams	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
365A:							
Naumburg	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
Croghan	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
367A:							
Searsport	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
Haplosaprists	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
Naumburg	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
375A:							
Colton	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
Adams	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
375C:							
Colton	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Adams	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
375D:							
Colton	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Adams	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
375F:							
Colton	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Adams	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
649C:							
Monadnock, rocky, very bouldery	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.93	Depth to water	1.00
		Slope	1.00				
		Depth to bedrock	0.93				
Tahawus, very bouldery	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
650C:							
Monadnock, bouldery	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Adams	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
650C:							
Colton	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
650D:							
Monadnock, bouldery	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Adams	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Colton	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
651D:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
653C:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
653D:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
655B:							
Sunapee, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
		Slope	1.00	Seepage	0.58	Depth to saturated zone	0.01
Monadnock, very bouldery	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
657C:							
Monadnock, very bouldery	60	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
657C:							
Tahawus, very bouldery	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
657D:							
Monadnock, very bouldery	60	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Tahawus, very bouldery	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
661C:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
661D:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
661F:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
705B:							
Adirondack, very bouldery	40	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Seepage	1.00		
Tahawus, very bouldery	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
721C:							
Becket, rocky, very bouldery	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.97	Depth to water	1.00
		Slope	1.00	Depth to saturated zone	0.86		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
721C:							
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.93	Depth to water	1.00
		Slope	1.00				
		Depth to bedrock	0.93				
Skerry, rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	1.00	Seepage	0.04		
721D:							
Becket, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.97	Depth to water	1.00
		Seepage	1.00	Depth to saturated zone	0.86		
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
721F:							
Becket, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.97	Depth to water	1.00
		Seepage	1.00	Depth to saturated zone	0.86		
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
723C:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.97	Depth to water	1.00
		Slope	1.00	Depth to saturated zone	0.86		
723D:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.97	Depth to water	1.00
		Seepage	1.00	Depth to saturated zone	0.86		
723F:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.97	Depth to water	1.00
		Seepage	1.00	Depth to saturated zone	0.86		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
725B:							
Skerry, very bouldery	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	1.00	Seepage	0.04		
Becket, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.97	Depth to water	1.00
		Slope	1.00	Depth to saturated zone	0.86		
727B:							
Skerry, very bouldery	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Seepage	0.04		
Adirondack, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Seepage	1.00		
831C:							
Tunbridge, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.93	Depth to water	1.00
		Slope	1.00				
		Depth to bedrock	0.93				
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00	Seepage	0.41		
831D:							
Tunbridge, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		
831F:							
Tunbridge, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
831F:							
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		
833C:							
Tunbridge, very rocky, very bouldery	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.93	Depth to water	1.00
		Slope	1.00				
		Depth to bedrock	0.93				
Adirondack, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.70	Seepage	1.00		
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00	Seepage	0.41		
851D:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
851F:							
Lyman, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
881F:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
881F:							
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		
930C:							
Mundalite, rocky, very bouldery	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.70	Seepage	0.28		
Rawsonville, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.97	Depth to water	1.00
		Slope	1.00				
		Depth to bedrock	0.97				
Ampersand, rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	1.00	Seepage	0.01		
931D:							
Mundalite, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.70	Seepage	0.28		
Rawsonville, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.97	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.97				
931F:							
Mundalite, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.70	Seepage	0.28		
Rawsonville, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.97	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.97				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
932C:							
Mundalite, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.70	Seepage	0.28		
Ampersand, very bouldery	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	1.00	Seepage	0.01		
932D:							
Mundalite, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.70	Seepage	0.28		
Ampersand, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	1.00	Seepage	0.01		
934C:							
Ampersand, very bouldery	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Seepage	0.01		
Wilmington, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Slope	0.32	Depth to saturated zone	1.00	Depth to water	1.00
				Seepage	0.48		
941C:							
Rawsonville, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.97	Depth to water	1.00
		Slope	1.00				
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00				
941D:							
Rawsonville, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.97	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.97				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
941D:							
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
941F:							
Rawsonville, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.97	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.97				
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
944D:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
944F:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
948F:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
Hogback, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
971D:							
Esther, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.93	Depth to water	1.00
		Seepage	1.00	Seepage	0.58		
Wallface, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.56	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.56				
975C:							
Andic Cryaquods, very bouldery	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	1.00	Seepage	0.95		
Esther, very bouldery	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.93	Depth to water	1.00
		Slope	1.00	Seepage	0.58		
975D:							
Esther, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.93	Depth to water	1.00
		Seepage	1.00	Seepage	0.58		
Andic Cryaquods, very bouldery	35	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	1.00	Seepage	0.95		
992D:							
Wallface, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.56	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.56				
Skylight, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Piping	1.00		
993F:							
Santanoni, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	0.52		
		Depth to bedrock	0.52				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
993F:							
Skylight, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Piping	1.00		
995D:							
Ricker, very rocky, very bouldery	30	Very limited		Not rated		Very limited	
		Slope	1.00			Depth to water	1.00
		Depth to bedrock	1.00				
Couchsachraga, very rocky, very bouldery	25	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
Skylight, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Piping	1.00		
995F:							
Ricker, very rocky, very bouldery	30	Very limited		Not rated		Very limited	
		Slope	1.00			Depth to water	1.00
		Depth to bedrock	1.00				
Couchsachraga, very rocky, very bouldery	25	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
Skylight, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Piping	1.00		
998F:							
Rock outcrop, very bouldery	30	Not rated		Not rated		Not rated	
Ricker, very bouldery	25	Very limited		Not rated		Very limited	
		Slope	1.00			Depth to water	1.00
		Depth to bedrock	1.00				
Skylight, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Piping	1.00		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AdA:							
Adams	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
AdB:							
Adams	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
AdC:							
Adams	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
AdD:							
Adams	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
AdE:							
Adams	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
AkA:							
Adirondack, very bouldery	85	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
				Seepage	1.00		
AkB:							
Adirondack, very bouldery	85	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Seepage	1.00		
AmB:							
Amenia	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32				
AmC:							
Amenia	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	1.00				
BcB:							
Becket	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.97	Depth to water	1.00
		Slope	0.32	Depth to saturated zone	0.86		
BcC:							
Becket	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.97	Depth to water	1.00
		Seepage	1.00	Depth to saturated zone	0.86		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BeB:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.97	Depth to water	1.00
		Slope	0.32	Depth to saturated zone	0.86		
BeC:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.97	Depth to water	1.00
		Seepage	1.00	Depth to saturated zone	0.86		
BeD:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.97	Depth to water	1.00
		Seepage	1.00	Depth to saturated zone	0.86		
BeF:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.97	Depth to water	1.00
		Seepage	1.00	Depth to saturated zone	0.86		
BkC:							
Becket, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.97	Depth to water	1.00
		Seepage	1.00	Depth to saturated zone	0.86		
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
BkD:							
Becket, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.97	Depth to water	1.00
		Seepage	1.00	Depth to saturated zone	0.86		
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
BoB:							
Bombay	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Slope	0.32				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BuA:							
Bucksport	85	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
BvA:							
Burnt Vly	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
CaA:							
Catden	85	Somewhat limited		Not rated		Somewhat limited	
		Seepage	0.43			Slow refill	0.57
						Cutbanks cave	0.10
CbA:							
Colton, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
CbB:							
Colton, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
CbC:							
Colton, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
CbD:							
Colton, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
CgB:							
Cayuga	85	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Seepage	0.07	Piping	0.98	Slow refill	0.93
CgC:							
Cayuga	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Seepage	0.07	Piping	0.98	Slow refill	0.93
ChB:							
Champlain	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
ChC:							
Champlain	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ChD:							
Champlain	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
ChE:							
Champlain	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
CkA:							
Charles	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
ClB:							
Charlton	85	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.32				
ClC:							
Charlton	85	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
ClD:							
Charlton	85	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
CnC:							
Charlton, rocky, very stony	45	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
Chatfield, rocky, very stony	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.81	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.81				
CnD:							
Charlton, rocky, very stony	45	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
Chatfield, rocky, very stony	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.81	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.81				
CoB:							
Chatfield, very rocky, very stony	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.81	Depth to water	1.00
		Depth to bedrock	0.81				
		Slope	0.32				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
CoB:							
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	0.32				
CoC:							
Chatfield, very rocky, very stony	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.81	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.81				
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
CoD:							
Chatfield, very rocky, very stony	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.81	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.81				
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
CoF:							
Chatfield, very rocky, very stony	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.81	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.81				
Hollis, very rocky, very stony	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
CpB:							
Churchville	85	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.01	Piping	1.00		
CqA:							
Claverack	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.30		
CqB:							
Claverack	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Piping	0.30		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CrB:							
Collamer	85	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.43	Depth to saturated zone	1.00	Slow refill	0.57
		Slope	0.08	Piping	0.99	Cutbanks cave	0.10
CsA:							
Colton	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
CsB:							
Colton	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
CsC:							
Colton	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
CsD:							
Colton	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
CsE:							
Colton	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
CtA:							
Cornish	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
CuA:							
Cosad	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.53		
CuB:							
Cosad	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Piping	0.53		
CvA:							
Covington	85	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Slow refill	1.00
				Hard to pack	0.11	Cutbanks cave	0.10
CwA:							
Croghan	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CwB:							
Croghan	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Slope	0.32	Seepage	1.00		
DeA:							
Deerfield	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
DeB:							
Deerfield	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Slope	0.32	Seepage	1.00		
DpC:							
Depeyster	85	Very limited		Very limited		Somewhat limited	
		Slope	1.00	Depth to saturated zone	1.00	Slow refill	0.57
		Seepage	0.43	Piping	1.00	Cutbanks cave	0.10
DpD:							
Depeyster	85	Very limited		Very limited		Somewhat limited	
		Slope	1.00	Depth to saturated zone	1.00	Slow refill	0.57
		Seepage	0.43	Piping	1.00	Cutbanks cave	0.10
DuC:							
Dunkirk	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.97	Depth to water	1.00
		Seepage	0.43				
DuD:							
Dunkirk	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.97	Depth to water	1.00
		Seepage	0.43				
DuE:							
Dunkirk	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.97	Depth to water	1.00
		Seepage	0.43				
DxB:							
Duxbury	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
ElB:							
Elmridge	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Piping	0.92		
FaD:							
Farmington, very rocky, very stony	85	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
FcB:							
Factoryville	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Cutbanks cave	1.00
		Slope	0.32	Depth to saturated zone	0.89	Depth to saturated zone	0.05
Colonie, calcareous substratum	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
FcC:							
Factoryville	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Cutbanks cave	1.00
		Slope	1.00	Depth to saturated zone	0.89	Depth to saturated zone	0.05
Colonie, calcareous substratum	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
FcD:							
Factoryville	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Cutbanks cave	1.00
		Slope	1.00	Depth to saturated zone	0.89	Depth to saturated zone	0.05
Colonie, calcareous substratum	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
FdF:							
Factoryville	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Cutbanks cave	1.00
		Slope	1.00	Depth to saturated zone	0.89	Depth to saturated zone	0.05
Dunkirk	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.97	Depth to water	1.00
		Seepage	0.43				
FgB:							
Farmington, very rocky, very stony	45	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00				
Galway, very rocky, very stony	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.70	Depth to water	1.00
		Slope	1.00				
		Depth to bedrock	0.69				
FkF:							
Farmington, very stony	60	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
FkF:							
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
FnB:							
Fernlake, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.88	Depth to water	1.00
		Slope	0.32				
FnC:							
Fernlake, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.88	Depth to water	1.00
		Slope	1.00				
FnD:							
Fernlake, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.88	Depth to water	1.00
		Slope	1.00				
FnF:							
Fernlake, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.88	Depth to water	1.00
		Slope	1.00				
FrB:							
Factoryville	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Cutbanks cave	1.00
		Slope	0.32	Depth to saturated zone	0.89	Depth to saturated zone	0.05
FuA:							
Fluvaquents, frequently flooded	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
Udifluvents, frequently flooded	30	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
GeB:							
Georgia	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Slope	0.32				
GeC:							
Georgia	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Seepage	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GoA:							
Gougeville----------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.50		
HaB:							
Hailesboro----------	85	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.99	Depth to saturated zone	1.00	Cutbanks cave	0.10
		Slope	0.08	Piping	1.00	Slow refill	0.01
HcB:							
Howard--------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32	Large stones	0.11		
HcC:							
Howard--------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00	Large stones	0.11		
HcD:							
Howard--------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00	Large stones	0.11		
HdB:							
Hartland------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	0.08				
HgB:							
Howard--------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
HlB:							
Howard--------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
HlC:							
Howard--------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
HmB:							
Howard--------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
HnC:							
Hermon, very bouldery-----------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
HnD:							
Hermon, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
HrF:							
Hogback, very rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
HsD:							
Hollis, very stony	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
HsF:							
Hollis, very stony	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Rock outcrop, very stony	30	Not rated		Not rated		Not rated	
KaB:							
Kalurah	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Slope	0.32				
KaC:							
Kalurah	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Seepage	1.00				
KgB:							
Kalurah, very stony	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Slope	0.32				
KgC:							
Kalurah, very stony	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Seepage	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
KyA:							
Kingsbury-----------	85	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Slow refill	1.00
						Cutbanks cave	0.10
KyB:							
Kingsbury-----------	85	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Slow refill	1.00
						Cutbanks cave	0.10
LnA:							
Livingston----------	85	Not limited		Very limited		Very limited	
				Ponding	1.00	Slow refill	1.00
				Depth to saturated zone	1.00	Cutbanks cave	0.10
				Hard to pack	0.15		
LvA:							
Lovewell------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
LyD:							
Lyman, very rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		
Knob Lock, very rocky, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
LyF:							
Lyman, very rocky, very bouldery------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		
Knob Lock, very rocky, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
MaB:							
Malone--------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Piping	1.00		
MbB:							
Malone, very stony--	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Piping	1.00		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
McA:							
Massena	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
McB:							
Massena	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Slope	0.32				
MdA:							
Medomak	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Piping	1.00		
MhB:							
Monadnock	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
MhC:							
Monadnock	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
MkB:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
MkC:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
MkD:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
MkF:							
Monadnock, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
MmF:							
Monadnock, bouldery	55	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Adams	25	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
MnC:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
MnD:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
MnF:							
Monadnock, rocky, very bouldery	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Tunbridge, rocky, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
MoA:							
Mooers	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
MuC:							
Mundalite, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.70	Seepage	0.28		
MuD:							
Mundalite, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.70	Seepage	0.28		
MwC:							
Mundalite, rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.70	Seepage	0.28		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
MwC:							
Rawsonville, rocky, very bouldery	30	Very limited Seepage Slope Depth to bedrock	 1.00 1.00 0.97	Somewhat limited Thin layer	 0.97	Very limited Depth to water	 1.00
MwD:							
Mundalite, rocky, very bouldery	45	Very limited Slope Seepage	 1.00 0.70	Somewhat limited Depth to saturated zone Seepage	 0.99 0.28	Very limited Depth to water	 1.00
Rawsonville, rocky, very bouldery	30	Very limited Slope Seepage Depth to bedrock	 1.00 1.00 0.97	Somewhat limited Thin layer	 0.97	Very limited Depth to water	 1.00
NaA:							
Naumburg	85	Very limited Seepage	 1.00	Very limited Depth to saturated zone Seepage	 1.00 1.00	Very limited Cutbanks cave	 1.00
NeB:							
Nellis	85	Very limited Seepage Slope	 1.00 0.32	Not limited		Very limited Depth to water	 1.00
NeC:							
Nellis	85	Very limited Slope Seepage	 1.00 1.00	Not limited		Very limited Depth to water	 1.00
NeD:							
Nellis	85	Very limited Slope Seepage	 1.00 1.00	Not limited		Very limited Depth to water	 1.00
NgA:							
Niagara	85	Somewhat limited Seepage	 0.05	Very limited Depth to saturated zone Piping	 1.00 0.92	Somewhat limited Slow refill Cutbanks cave	 0.19 0.10
NgB:							
Niagara	85	Somewhat limited Slope Seepage	 0.08 0.05	Very limited Depth to saturated zone Piping	 1.00 0.92	Somewhat limited Slow refill Cutbanks cave	 0.19 0.10
NvB:							
Nicholville	85	Very limited Seepage Slope	 1.00 0.08	Very limited Depth to saturated zone Piping	 1.00 1.00	Somewhat limited Cutbanks cave	 0.10

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OmA:							
Occum	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
OwA:							
Ondawa	85	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Pc:							
Pits, quarry	85	Not rated		Not rated		Not rated	
Pd:							
Pits, sand and gravel	85	Not rated		Not rated		Not rated	
PfB:							
Pittsfield	85	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.32				
PfC:							
Pittsfield	85	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
PfD:							
Pittsfield	85	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
PfE:							
Pittsfield	85	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
PkA:							
Pleasant Lake	85	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
PlB:							
Pittsfield, rocky, very stony	45	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.32				
Chatfield, rocky, very stony	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.81	Depth to water	1.00
		Depth to bedrock	0.81				
		Slope	0.32				
PlC:							
Pittsfield, rocky, very stony	45	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
Chatfield, rocky, very stony	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.81	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.81				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PlD:							
Pittsfield, rocky, very stony	45	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
Chatfield, rocky, very stony	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.81	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.81				
PlF:							
Pittsfield, rocky, very stony	45	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
Chatfield, rocky, very stony	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.81	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.81				
PoA:							
Podunk	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
PrA:							
Pootatuck	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
PtB:							
Pyrities	85	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.32				
PtC:							
Pyrities	85	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
PtD:							
Pyrities	85	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
PuC:							
Pyrities, very stony	85	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
PuD:							
Pyrities, very stony	85	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PwC:							
Pyrities, very stony	45	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
Nehasne, very stony-	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.96	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.96				
PwD:							
Pyrities, very stony	45	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
Nehasne, very stony-	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.96	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.96				
PyC:							
Pyrities------------	45	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
Nehasne-------------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.96	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.96				
PyD:							
Pyrities------------	45	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
Nehasne-------------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.96	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.96				
RaC:							
Rawsonville, very rocky, very bouldery-----------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.97	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.97				
Hogback, very rocky, very bouldery------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
RaD:							
Rawsonville, very rocky, very bouldery-----------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.97	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.97				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
RaD:							
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
RaF:							
Rawsonville, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.97	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.97				
Hogback, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
RmA:							
Rippowam	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.21		
RpF:							
Rock outcrop, very bouldery	40	Not rated		Not rated		Not rated	
Knob Lock, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
Lyman, very rocky, very bouldery	20	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		
RsA:							
Roundabout	85	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	1.00		
RuA:							
Rumney	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
RyA:							
Rumney	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
RyA:							
Burnt Vly	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
SeA:							
Searsport	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
SkB:							
Skerry	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Seepage	0.04		
SnB:							
Sunapee, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
		Slope	0.32	Seepage	0.58	Depth to saturated zone	0.01
SpB:							
Sunapee	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
		Slope	0.32	Seepage	0.58	Depth to saturated zone	0.01
SrB:							
Skerry, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Seepage	0.04		
SrC:							
Skerry, very bouldery	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	1.00	Seepage	0.04		
StA:							
Stafford	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
SuA:							
Sun	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TaA:							
Tahawus, very bouldery	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
TeA:							
Typic Endoaquolls, very stony	85	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
ToA:							
Tonawanda	85	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	1.00		
TuC:							
Tunbridge, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		
TuD:							
Tunbridge, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		
TuF:							
Tunbridge, very rocky, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	1.00				
		Depth to bedrock	0.93				
Lyman, very rocky, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Seepage	0.41		

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
UlC:							
Udorthents	100	Not rated		Not rated		Not rated	
UmF:							
Udorthents, mine spoil	100	Not rated		Not rated		Not rated	
VeB:							
Vergennes	85	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Slow refill	1.00
				Hard to pack	0.12	Cutbanks cave	0.10
VeC:							
Vergennes	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slow refill	1.00
				Hard to pack	0.12	Cutbanks cave	0.10
VeD:							
Vergennes	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slow refill	1.00
				Hard to pack	0.12	Cutbanks cave	0.10
VeE:							
Vergennes	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slow refill	1.00
				Hard to pack	0.12	Cutbanks cave	0.10
W:							
Water	100	Not rated		Not rated		Not rated	
WeA:							
Wegatchie	85	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.81	Depth to saturated zone	1.00	Slow refill	0.19
				Piping	1.00	Cutbanks cave	0.10
WlA:							
Whallonsburg	85	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.43	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
WnA:							
Windsor	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
WnB:							
Windsor	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
WnC:							
Windsor	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				

Table 18.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WnD:							
Windsor	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
WnE:							
Windsor	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
WoA:							
Wonsqueak	85	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		

Table 19.—Engineering Index Properties

(Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative textur
textures follow the dash.)

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
10A:									
Pleasant Lake---	0-4	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---
	4-5	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---
	5-9	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---
	9-31	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---
	31-44	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---
	44-53	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---
	53-66	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---
Burnt Vly-------	0-10	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---
	10-15	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---
	15-24	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---
	24-34	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---
	34-56	*Loamy fine sand, Loamy sand, sand, gravelly loamy sand, cobbly loamy sand, gravelly sand, gravelly coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-2, A-1, A-3	0-15	0-25	55-100	50-100	0-100
	56-72	*Very fine sandy loam, Loamy fine sand, loamy sand, sand, gravelly loamy sand, cobbly loamy sand, gravelly sand, gravelly coarse sand	*ML, SM, SP-SM, GM, GP-GM, SP, GP	*A-4, A-2, A-3, A-1	0-15	0-25	55-100	50-100	0-100
13A:									
Burnt Vly-------	0-10	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---
	10-15	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---
	15-24	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---
	24-34	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---
	34-56	*Loamy fine sand, Loamy sand, sand, gravelly loamy sand, cobbly loamy sand, gravelly sand, gravelly coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-2, A-1, A-3	0-15	0-25	55-100	50-100	0-100
	56-72	*Very fine sandy loam, Loamy fine sand, loamy sand, sand, gravelly loamy sand, cobbly loamy sand, gravelly sand, gravelly coarse sand	*ML, SM, SP-SM, GM, GP-GM, SP, GP	*A-4, A-2, A-3, A-1	0-15	0-25	55-100	50-100	0-100

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 20
	In				Pct	Pct				
13A:										
Rumney----------	0-7	*Loam, Fine sandy loam, sandy loam, very fine sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	7-12	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	12-19	*Loam, Sandy loam, fine sandy loam, very fine sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	19-30	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	30-33	*Fine sandy loam, Sandy loam, loam, very fine sandy loam, very gravelly loamy sand, loamy sand, sand, gravelly loamy sand	*SM, ML	*A-4, A-2	0-3	0-15	50-100	45-100	0-100	0
	33-48	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0
	48-54	*Silt loam, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam, loamy fine sand	*ML, SM, SP-SM, SP	*A-4, A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
	54-72	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GP-GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0
Pleasant Lake---	0-4	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	4-5	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	5-9	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	9-31	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	31-44	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	44-53	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	53-66	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
29C:										
Burnt Vly-------	0-10	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	10-15	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	15-24	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	24-34	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	34-56	*Loamy fine sand, Loamy sand, sand, gravelly loamy sand, cobbly loamy sand, gravelly sand, gravelly coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-2, A-1, A-3	0-15	0-25	55-100	50-100	0-100	0
	56-72	*Very fine sandy loam, Loamy fine sand, loamy sand, sand, gravelly loamy sand, cobbly loamy sand, gravelly sand, gravelly coarse sand	*ML, SM, SP-SM, GM, GP-GM, SP, GP	*A-4, A-2, A-3, A-1	0-15	0-25	55-100	50-100	0-100	0
Colton----------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
Colton----------	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
Rumney----------	0-7	*Loam, Fine sandy loam, sandy loam, very fine sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	7-12	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	12-19	*Loam, Sandy loam, fine sandy loam, very fine sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	19-30	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	30-33	*Fine sandy loam, Sandy loam, loam, very fine sandy loam, very gravelly loamy sand, loamy sand, sand, gravelly loamy sand	*SM, ML	*A-4, A-2	0-3	0-15	50-100	45-100	0-100	0
	33-48	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0
	48-54	*Silt loam, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam, loamy fine sand	*ML, SM, SP-SM, SP	*A-4, A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
	54-72	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GP-GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
113A:										
Ondawa----------	0-9	*Sandy loam, Fine sandy loam, loam	*SM, ML	*A-2, A-4	0	0	80-100	75-100	20-100	5
	9-21	*Sandy loam, Fine sandy loam, loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	21-34	*Fine sandy loam, Sandy loam, loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	34-72	*Loamy fine sand, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam	*SM, SP-SM, SP	*A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
Rumney----------	0-7	*Loam, Fine sandy loam, sandy loam, very fine sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	7-12	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	12-19	*Loam, Sandy loam, fine sandy loam, very fine sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	19-30	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	30-33	*Fine sandy loam, Sandy loam, loam, very fine sandy loam, very gravelly loamy sand, loamy sand, sand, gravelly loamy sand	*SM, ML	*A-4, A-2	0-3	0-15	50-100	45-100	0-100	0
	33-48	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0
	48-54	*Silt loam, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam, loamy fine sand	*ML, SM, SP-SM, SP	*A-4, A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Rumney----------	54-72	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GP-GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0
123A:										
Lovewell--------	0-11	*Very fine sandy loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	95-100	90-100	50
	11-20	*Very fine sandy loam, Silt loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	95-100	90-100	50
	20-30	*Very fine sandy loam, Silt loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	95-100	90-100	50
	30-50	*Very fine sandy loam, Silt loam, loamy very fine sand	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	95-100	90-100	45
	50-56	*Stratified fine sand	*SM, ML, SP-SM	*A-2, A-3, A-4	0	0	85-100	80-100	50-95	5
	56-75	*Stratified fine sand	*SM, ML, SP-SM	*A-2, A-3, A-4	0	0	85-100	80-100	50-95	5
Cornish---------	0-12	*Silt loam, Very fine sandy loam	*ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	12-21	*Silt loam, Very fine sandy loam	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	21-35	*Silt loam, Very fine sandy loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	35-42	*Very fine sandy loam, Silt loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	42-48	*Loamy sand, Silt loam, loamy very fine sand, loamy fine sand, very fine sandy loam, fine sand	*SM, ML, CL-ML	*A-2, A-4	0	0	80-100	75-100	10-100	0
	48-53	*Silt loam, Loamy sand, loamy very fine sand, loamy fine sand, very fine sandy loam, fine sand	*ML, SM, CL-ML	*A-4, A-2	0	0	80-100	75-100	10-100	0
	53-72	*Loamy fine sand, Silt loam, loamy very fine sand, loamy sand, very fine sandy loam, fine sand	*SM, ML, CL-ML	*A-2, A-4	0	0	80-100	75-100	10-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
350B:										
Duxbury, very stony----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Fine sandy loam, Very fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-5	0-10	75-100	70-100	40-100	10
	4-5	*Fine sandy loam, Very fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-5	0-10	75-100	70-100	40-100	10
	5-13	*Fine sandy loam, Very fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-5	0-10	75-100	70-100	40-100	10
	13-21	*Fine sandy loam, Very fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-10	75-100	70-100	40-100	10
	21-31	*Gravelly sand, Gravelly coarse sand, extremely gravelly coarse sand, very gravelly coarse sand, very gravelly sand, gravelly loamy sand	*SP-SM, GP, GW, SW	*A-1,	0-10	0-15	30-85	20-75	0-70	0
	31-36	*Gravelly coarse sand, Gravelly sand, extremely gravelly coarse sand, very gravelly coarse sand, very gravelly sand, gravelly loamy sand	*SW-SM, GP, GW, SW	*A-1,	0-10	0-15	30-85	20-75	0-70	0
	36-72	*Very gravelly coarse sand, Very gravelly sand, extremely gravelly coarse sand, gravelly sand, gravelly coarse sand, gravelly loamy sand	*SW-SM, GP, GW, SW	*A-1,	0-10	0-25	30-85	20-75	0-70	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
363A:										
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
363B:										
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
363D:										
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Adams-----------	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
363F:										
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
365A:										
Naumburg--------	0-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-7	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SW-SM, SP-SM	*A-2, A-3, A-4	0	0	95-100	90-100	0-100	0
	7-10	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	95-100	90-100	0-100	0
	10-18	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	95-100	90-100	0-100	0
	18-31	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	95-100	90-100	0-100	0
	31-54	*Sand, Loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	95-100	90-100	0-100	0
	54-72	*Stratified sand to coarse sand, Sand, loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	95-100	90-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Croghan---------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	95-100	90-100	0-100	0
	3-5	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	95-100	90-100	0-100	0
	5-8	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	80-100	75-100	0-100	0
	8-14	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SM	*A-3, A-2	0	0	80-100	75-100	0-100	0
	14-23	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
	23-29	*Sand, Loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
	29-42	*Sand, Loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
	42-45	*Stratified loamy fine sand to fine sandy loam, Sand, loamy sand, fine sand, loamy fine sand, coarse sand	*SM, SW-SM, SP, SP-SM, SW	*A-2, A-3, A-1	0	0	80-100	75-100	0-100	0
	45-72	*Stratified sand to fine sand to coarse sand, Sand, loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
367A:										
Searsport-------	0-4	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	4-9	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	9-14	*Mucky sand, Fine sand, loamy sand, loamy fine sand, mucky loamy fine sand, sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	80-100	75-100	0-100	0
	14-22	*Sand, Loamy sand, fine sand, loamy fine sand, loamy very fine sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
	22-32	*Sand, Loamy sand, fine sand, loamy fine sand, loamy very fine sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
	32-40	*Loamy fine sand, Loamy sand, fine sand, sand, loamy very fine sand	*SM, ML, SW-SM, SP, SP-SM, SW	*A-2, A-3, A-4, A-1	0	0	80-100	75-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
Searsport-------	40-48	*Loamy fine sand, Loamy sand, fine sand, sand, gravelly sand, very gravelly coarse sand	*SM, SW-SM, SP, SP-SM, SW	*A-2, A-3, A-1	0	0-1	45-100	40-100	0-100	0
	48-54	*Very fine sandy loam, Loamy sand, fine sand, sand, loamy fine sand, gravelly sand, very gravelly coarse sand	*ML, SW-SM, SP, SP-SM, SW	*A-4, A-3, A-1, A-2	0	0-1	45-100	40-100	0-100	0
	54-72	*Stratified fine sand to sand, Loamy sand, fine sand, sand, loamy fine sand, gravelly sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	45-100	40-100	0-100	0
Haplosaprists---	0-10	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	10-20	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	20-72	*Loamy fine sand, Loamy sand, fine sand, sand, very fine sandy loam, gravelly sand, very gravelly coarse sand	*SM, SW-SM, SP, SP-SM, SW, ML	*A-2, A-3, A-1, A-4	0	0-1	45-100	40-100	0-100	0
Naumburg--------	0-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-7	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SW-SM, SP-SM	*A-2, A-3, A-4	0	0	95-100	90-100	0-100	0
	7-10	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	95-100	90-100	0-100	0
	10-18	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	95-100	90-100	0-100	0
	18-31	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	95-100	90-100	0-100	0
	31-54	*Sand, Loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	95-100	90-100	0-100	0
	54-72	*Stratified sand to coarse sand, Sand, loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	95-100	90-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
375A:										
Colton----------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-90	20-70	0-65	0
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Adams----------	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
375C:										
Colton---------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
Adams----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Adams----------	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
375D:										
Colton---------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
375F:										
Colton----------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Colton----------	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
649C: Monadnock, rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Monadnock, rocky, very bouldery-------	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
Tunbridge, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
Tahawus, very bouldery-------	0-2	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	2-5	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	5-9	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	9-17	*Sandy loam, Gravelly sandy loam, cobbly sandy loam, fine sandy loam, gravelly fine sandy loam, loamy sand, gravelly loamy sand, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	5-90	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Tahawus, very bouldery-------	17-24	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand, gravelly coarse sand, loamy coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-1, A-2, A-3	0-15	1-25	55-95	50-90	0-90	0
	24-72	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand, gravelly coarse sand, loamy coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-1, A-2, A-3	0-15	1-25	55-95	50-90	0-90	0
650C:										
Monadnock, bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage passing sieve number-- 4	10	40	2
	In				Pct	Pct				
Adams-----------	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
Colton----------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
650D:										
Monadnock, bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Colton----------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
651D: Monadnock, rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Monadnock, rocky, very bouldery-------	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
Tunbridge, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
653C: Monadnock, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
653D: Monadnock, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Monadnock, very bouldery-------	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
655B:										
Sunapee, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Fine sandy loam, Loam, gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	25-90	10
	4-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	5-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-14	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	14-19	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	19-31	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	31-72	*Gravelly loamy sand, Loamy sand, very gravelly loamy sand, gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	1-25	35-95	30-90	5-80	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Monadnock, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
657C: Monadnock, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
Monadnock, very bouldery-------	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
Tahawus, very bouldery-------	0-2	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	2-5	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	5-9	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	9-17	*Sandy loam, Gravelly sandy loam, cobbly sandy loam, fine sandy loam, gravelly fine sandy loam, loamy sand, gravelly loamy sand, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	5-90	5
	17-24	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand, gravelly coarse sand, loamy coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-1, A-2, A-3	0-15	1-25	55-95	50-90	0-90	0
	24-72	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand, gravelly coarse sand, loamy coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-1, A-2, A-3	0-15	1-25	55-95	50-90	0-90	0
657D:										
Monadnock, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage passing sieve number-- 4	10	40
	In				Pct	Pct			
Monadnock, very bouldery-------	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80
Tahawus, very bouldery-------	0-2	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---
	2-5	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---
	5-9	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---
	9-17	*Sandy loam, Gravelly sandy loam, cobbly sandy loam, fine sandy loam, gravelly fine sandy loam, loamy sand, gravelly loamy sand, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	5-90
	17-24	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand, gravelly coarse sand, loamy coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-1, A-2, A-3	0-15	1-25	55-95	50-90	0-90
	24-72	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand, gravelly coarse sand, loamy coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-1, A-2, A-3	0-15	1-25	55-95	50-90	0-90
661C: Hermon, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Hermon, very bouldery-------	3-5	*Gravelly loamy sand, Gravelly sandy loam, very gravelly loamy sand	*SM, GM	*A-2, A-1, A-4	0-10	5-20	45-90	35-80	5-70	5
	5-10	*Gravelly loamy sand, Gravelly sandy loam, very gravelly loamy sand	*SM, GM	*A-1, A-2, A-4	0-10	5-20	45-90	35-80	5-70	5
	10-20	*Very gravelly loamy sand, Gravelly loamy sand, gravelly sandy loam	*SM, GM	*A-1, A-2, A-4	0-15	8-30	30-85	20-75	0-70	0
	20-29	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GP, GM, GP-GM, SM, SP-SM	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
	29-38	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GM, GP-GM, SM, SP-SM, GP	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
	38-72	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GM, GP-GM, SM, SP-SM, GP	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
661D:										
Hermon, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-5	*Gravelly loamy sand, Gravelly sandy loam, very gravelly loamy sand	*SM, GM	*A-2, A-1, A-4	0-10	5-20	45-90	35-80	5-70	5
	5-10	*Gravelly loamy sand, Gravelly sandy loam, very gravelly loamy sand	*SM, GM	*A-1, A-2, A-4	0-10	5-20	45-90	35-80	5-70	5
	10-20	*Very gravelly loamy sand, Gravelly loamy sand, gravelly sandy loam	*SM, GM	*A-1, A-2, A-4	0-15	8-30	30-85	20-75	0-70	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Hermon, very bouldery-------	20-29	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GP, GM, GP-GM, SM, SP-SM	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
	29-38	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GM, GP-GM, SM, SP-SM, GP	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
	38-72	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GM, GP-GM, SM, SP-SM, GP	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
661F: Hermon, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-5	*Gravelly loamy sand, Gravelly sandy loam, very gravelly loamy sand	*SM, GM	*A-2, A-1, A-4	0-10	5-20	45-90	35-80	5-70	5
	5-10	*Gravelly loamy sand, Gravelly sandy loam, very gravelly loamy sand	*SM, GM	*A-1, A-2, A-4	0-10	5-20	45-90	35-80	5-70	5
	10-20	*Very gravelly loamy sand, Gravelly loamy sand, gravelly sandy loam	*SM, GM	*A-1, A-2, A-4	0-15	8-30	30-85	20-75	0-70	0
	20-29	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GP, GM, GP-GM, SM, SP-SM	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
	29-38	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GM, GP-GM, SM, SP-SM, GP	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Hermon, very bouldery-------	38-72	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GM, GP-GM, SM, SP-SM, GP	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
705B:										
Adirondack, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0-5	0-10	100	100	90-100	80
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0-5	0-10	100	100	90-100	80
	4-6	*Fine sandy loam	*SM, ML	*A-4,	1-5	0-10	65-95	55-92	30-85	15
	6-8	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	8-9	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	9-18	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	18-26	*Sandy loam, Gravelly fine sandy loam, stony loam	*SM, ML	*A-2, A-4	0-5	0-15	65-95	50-92	30-80	15
	26-34	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
	34-43	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
	43-72	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
Tahawus, very bouldery-------	0-2	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	2-5	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	5-9	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Tahawus, very bouldery-------	9-17	*Sandy loam, Gravelly sandy loam, cobbly sandy loam, fine sandy loam, gravelly fine sandy loam, loamy sand, gravelly loamy sand, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	5-90	5
	17-24	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand, gravelly coarse sand, loamy coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-1, A-2, A-3	0-15	1-25	55-95	50-90	0-90	0
	24-72	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand, gravelly coarse sand, loamy coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-1, A-2, A-3	0-15	1-25	55-95	50-90	0-90	0
721C:										
Becket, rocky, very bouldery--	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Becket, rocky, very bouldery--	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
Tunbridge, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
Skerry, rocky, very bouldery--	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Loam, Fine sandy loam, gravelly fine sandy loam	*OL, ML, SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-90	10
	4-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Skerry, rocky, very bouldery--	9-15	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	15-26	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	26-38	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	38-72	*Gravelly loamy fine sand, Gravelly loamy sand, gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	1-25	50-95	45-90	5-90	5
721D: Becket, rocky, very bouldery--	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
Tunbridge, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
721F: Becket, rocky, very bouldery--	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Becket, rocky, very bouldery--	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
Tunbridge, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
723C: Becket, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
723D: Becket, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
723D: Becket, very bouldery-------	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
723F: Becket, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
725B:										
Skerry, very bouldery-------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Loam, Fine sandy loam, gravelly fine sandy loam	*OL, ML, SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-90	10
	4-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	9-15	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	15-26	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	26-38	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	38-72	*Gravelly loamy fine sand, Gravelly loamy sand, gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	1-25	50-95	45-90	5-90	5
Becket, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Becket, very bouldery-------	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10-
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10-
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10-
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5-
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5-
727B:										
Skerry, very bouldery-------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	--
	2-4	*Loam, Fine sandy loam, gravelly fine sandy loam	*OL, ML, SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-90	10-
	4-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10-
	5-9	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10-
	9-15	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10-
	15-26	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
727B:										
Skerry, very bouldery-------	26-38	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	38-72	*Gravelly loamy fine sand, Gravelly loamy sand, gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	1-25	50-95	45-90	5-90	5
Adirondack, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0-5	0-10	100	100	90-100	80
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0-5	0-10	100	100	90-100	80
	4-6	*Fine sandy loam	*SM, ML	*A-4,	1-5	0-10	65-95	55-92	30-85	15
	6-8	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	8-9	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	9-18	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	18-26	*Sandy loam, Gravelly fine sandy loam, stony loam	*SM, ML	*A-2, A-4	0-5	0-15	65-95	50-92	30-80	15
	26-34	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
	34-43	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
	43-72	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
831C:										
Tunbridge, very rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Lyman, very rocky, very bouldery-------	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-
831D: Tunbridge, very rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
Lyman, very rocky, very bouldery-------	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-
831F: Tunbridge, very rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-
833C: Tunbridge, very rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Tunbridge, very rocky, very bouldery-------	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
Adirondack, very rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0-5	0-10	100	100	90-100	80
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0-5	0-10	100	100	90-100	80
	4-6	*Fine sandy loam	*SM, ML	*A-4,	1-5	0-10	65-95	55-92	30-85	15
	6-8	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	8-9	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	9-18	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	18-26	*Sandy loam, Gravelly fine sandy loam, stony loam	*SM, ML	*A-2, A-4	0-5	0-15	65-95	50-92	30-80	15
	26-34	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
	34-43	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
	43-72	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2[illegible]
	In				Pct	Pct				
Lyman, very rocky, very bouldery-------	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-
851D: Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Knob Lock, very rocky, very bouldery-------	0-3	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-7	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	7-9	*Very fine sandy loam, Gravelly loamy sand, loamy sand, gravelly sandy loam, sandy loam, gravelly sand, fine sandy loam, gravelly fine sandy loam, gravelly coarse sand, very gravelly coarse sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	40-100	35-100	0-100	0
	9-72	*Unweathered bedrock			0	0	---	---	---	-
851F: Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
Knob Lock, very rocky, very bouldery-------	0-3	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	--
	3-7	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	--
	7-9	*Very fine sandy loam, Gravelly loamy sand, loamy sand, gravelly sandy loam, sandy loam, gravelly sand, fine sandy loam, gravelly fine sandy loam, gravelly coarse sand, very gravelly coarse sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	40-100	35-100	0-100	0-
	9-72	*Unweathered bedrock			0	0	---	---	---	--
881F: Rock outcrop, very bouldery--	0-72	*Unweathered bedrock			0	0	---	---	---	--
Knob Lock, very rocky, very bouldery-------	0-3	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	--
	3-7	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	--
	7-9	*Very fine sandy loam, Gravelly loamy sand, loamy sand, gravelly sandy loam, sandy loam, gravelly sand, fine sandy loam, gravelly fine sandy loam, gravelly coarse sand, very gravelly coarse sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	40-100	35-100	0-100	0-
	9-72	*Unweathered bedrock			0	0	---	---	---	--
Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	--
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	--

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Lyman, very rocky, very bouldery-------	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-
930C: Mundalite, rocky, very bouldery-------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sandy loam	*CL-ML, SM, ML	*A-4, A-2-4	1-7	0-15	80-100	60-98	50-90	30
	3-5	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	5-14	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	14-27	*Cobbly fine sandy loam, Fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	27-37	*Very cobbly fine sandy loam, Cobbly sandy loam, gravelly fine sandy loam	*SM, GM, GC-GM	*A-1, A-4, A-2-4	1-7	1-30	65-92	40-90	25-65	10
	37-72	*Very cobbly loamy sand, Gravelly loamy sand, cobbly sandy loam	*SM, SP-SM	*A-1, A-2	1-7	1-30	65-90	40-90	25-60	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Rawsonville, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80	10
	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80	10
	25-72	*Unweathered bedrock			0	0	---	---	---	-
Ampersand, rocky, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	10-90	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
Ampersand, rocky, very bouldery-------	5-13	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	13-19	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	19-24	*Sandy loam, Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand, gravelly loamy sand	*SM, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	5-90	5
	24-32	*Gravelly loamy sand, Loamy fine sand, gravelly coarse sandy loam, gravelly sandy loam, gravelly fine sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-25	55-95	50-90	5-90	5
	32-72	*Stratified gravelly sandy loam to gravelly loamy sand, Gravelly loamy sand, loamy fine sand, gravelly coarse sandy loam, gravelly sandy loam, gravelly fine sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-25	55-95	50-90	5-90	5
931D: Mundalite, rocky, very bouldery-------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sandy loam	*CL-ML, SM, ML	*A-4, A-2-4	1-7	0-15	80-100	60-98	50-90	30
	3-5	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
931D: Mundalite, rocky, very bouldery-------	5-14	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	14-27	*Cobbly fine sandy loam, Fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	27-37	*Very cobbly fine sandy loam, Cobbly sandy loam, gravelly fine sandy loam	*SM, GM, GC-GM	*A-1, A-4, A-2-4	1-7	1-30	65-92	40-90	25-65	10
	37-72	*Very cobbly loamy sand, Gravelly loamy sand, cobbly sandy loam	*SM, SP-SM	*A-1, A-2	1-7	1-30	65-90	40-90	25-60	5
Rawsonville, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80	10
	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Rawsonville, rocky, very bouldery-------	25-72	*Unweathered bedrock			0	0	---	---	---	-
931F: Mundalite, rocky, very bouldery-------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sandy loam	*CL-ML, SM, ML	*A-4, A-2-4	1-7	0-15	80-100	60-98	50-90	30
	3-5	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	5-14	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	14-27	*Cobbly fine sandy loam, Fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	27-37	*Very cobbly fine sandy loam, Cobbly sandy loam, gravelly fine sandy loam	*SM, GM, GC-GM	*A-1, A-4, A-2-4	1-7	1-30	65-92	40-90	25-65	10
	37-72	*Very cobbly loamy sand, Gravelly loamy sand, cobbly sandy loam	*SM, SP-SM	*A-1, A-2	1-7	1-30	65-90	40-90	25-60	5
Rawsonville, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Rawsonville, rocky, very bouldery-------	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80	10
	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80	10
	25-72	*Unweathered bedrock			0	0	---	---	---	-
932C: Mundalite, very bouldery-------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sandy loam	*CL-ML, SM, ML	*A-4, A-2-4	1-7	0-15	80-100	60-98	50-90	30
	3-5	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	5-14	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	14-27	*Cobbly fine sandy loam, Fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	27-37	*Very cobbly fine sandy loam, Cobbly sandy loam, gravelly fine sandy loam	*SM, GM, GC-GM	*A-1, A-4, A-2-4	1-7	1-30	65-92	40-90	25-65	10
	37-72	*Very cobbly loamy sand, Gravelly loamy sand, cobbly sandy loam	*SM, SP-SM	*A-1, A-2	1-7	1-30	65-90	40-90	25-60	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Ampersand, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	10-90	5
	5-13	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	13-19	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	19-24	*Sandy loam, Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand, gravelly loamy sand	*SM, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	5-90	5
	24-32	*Gravelly loamy sand, Loamy fine sand, gravelly coarse sandy loam, gravelly sandy loam, gravelly fine sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-25	55-95	50-90	5-90	5
	32-72	*Stratified gravelly sandy loam to gravelly loamy sand, Gravelly loamy sand, loamy fine sand, gravelly coarse sandy loam, gravelly sandy loam, gravelly fine sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-25	55-95	50-90	5-90	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
932D:										
Mundalite, very bouldery-------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sandy loam	*CL-ML, SM, ML	*A-4, A-2-4	1-7	0-15	80-100	60-98	50-90	30
	3-5	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	5-14	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	14-27	*Cobbly fine sandy loam, Fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	27-37	*Very cobbly fine sandy loam, Cobbly sandy loam, gravelly fine sandy loam	*SM, GM, GC-GM	*A-1, A-4, A-2-4	1-7	1-30	65-92	40-90	25-65	10
	37-72	*Very cobbly loamy sand, Gravelly loamy sand, cobbly sandy loam	*SM, SP-SM	*A-1, A-2	1-7	1-30	65-90	40-90	25-60	5
Ampersand, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	10-90	5
	5-13	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Ampersand, very bouldery-------	13-19	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	19-24	*Sandy loam, Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand, gravelly loamy sand	*SM, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	5-90	5
	24-32	*Gravelly loamy sand, Loamy fine sand, gravelly coarse sandy loam, gravelly sandy loam, gravelly fine sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-25	55-95	50-90	5-90	5
	32-72	*Stratified gravelly sandy loam to gravelly loamy sand, Gravelly loamy sand, loamy fine sand, gravelly coarse sandy loam, gravelly sandy loam, gravelly fine sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-25	55-95	50-90	5-90	5
934C:										
Ampersand, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	10-90	5
	5-13	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
934C:										
Ampersand, very bouldery-------	13-19	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	19-24	*Sandy loam, Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand, gravelly loamy sand	*SM, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	5-90	5
	24-32	*Gravelly loamy sand, Loamy fine sand, gravelly coarse sandy loam, gravelly sandy loam, gravelly fine sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-25	55-95	50-90	5-90	5
	32-72	*Stratified gravelly sandy loam to gravelly loamy sand, Gravelly loamy sand, loamy fine sand, gravelly coarse sandy loam, gravelly sandy loam, gravelly fine sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-25	55-95	50-90	5-90	5
Wilmington, very bouldery-------	0-3	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	3-5	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	5-7	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	7-9	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	30-80	10
	9-14	*Sandy loam, Fine sandy loam, gravelly sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	30-80	10
	14-19	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Wilmington, very bouldery-------	19-72	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	0-25	55-95	50-90	30-80	10
941C:										
Rawsonville, very rocky, very bouldery--	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80	10
	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80	10
	25-72	*Unweathered bedrock			0	0	---	---	---	-
Hogback, very rocky, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
Hogback, very rocky, very bouldery-------	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	30-90	5
	4-6	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
bouldery-------	6-14	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	14-72	*Unweathered bedrock			0	0	---	---	---	-
941D: Rawsonville, very rocky, very bouldery--	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
941D: Rawsonville, very rocky, very bouldery--	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80	10
	25-72	*Unweathered bedrock			0	0	---	---	---	-
Hogback, very rocky, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	30-90	5
	4-6	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	6-14	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	14-72	*Unweathered bedrock			0	0	---	---	---	-
941F: Rawsonville, very rocky, very bouldery--	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
941F: Rawsonville, very rocky, very bouldery--	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80	10
	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80	10
	25-72	*Unweathered bedrock			0	0	---	---	---	-
Hogback, very rocky, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	30-90	5
	4-6	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	6-14	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	14-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
944D:										
Hogback, very rocky, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	30-90	5
	4-6	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	6-14	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	14-72	*Unweathered bedrock			0	0	---	---	---	-
Knob Lock, very rocky, very bouldery-------	0-3	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-7	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	7-9	*Very fine sandy loam, Gravelly loamy sand, loamy sand, gravelly sandy loam, sandy loam, gravelly sand, fine sandy loam, gravelly fine sandy loam, gravelly coarse sand, very gravelly coarse sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	40-100	35-100	0-100	0
	9-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
944F:										
Hogback, very rocky, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	30-90	5
	4-6	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	6-14	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	14-72	*Unweathered bedrock			0	0	---	---	---	-
Knob Lock, very rocky, very bouldery-------	0-3	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-7	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	7-9	*Very fine sandy loam, Gravelly loamy sand, loamy sand, gravelly sandy loam, sandy loam, gravelly sand, fine sandy loam, gravelly fine sandy loam, gravelly coarse sand, very gravelly coarse sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	40-100	35-100	0-100	0
	9-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
948F:										
Rock outcrop, very bouldery--	0-72	*Unweathered bedrock			0	0	---	---	---	-
Knob Lock, very bouldery-------	0-3	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-7	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	7-9	*Very fine sandy loam, Gravelly loamy sand, loamy sand, gravelly sandy loam, sandy loam, gravelly sand, fine sandy loam, gravelly fine sandy loam, gravelly coarse sand, very gravelly coarse sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	40-100	35-100	0-100	0
	9-72	*Unweathered bedrock			0	0	---	---	---	-
Hogback, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	30-90	5
	4-6	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	6-14	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	14-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
971D:										
Esther, rocky, very bouldery--	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-8	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	8-10	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	5-90	5
	10-22	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	22-28	*Gravelly fine sandy loam, Sandy loam, fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10
	28-33	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam, gravelly coarse sandy loam	*SM, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	10-80	10
	33-72	*Gravelly loamy sand, Loamy sand, gravelly sand, sand, gravelly loamy coarse sand, very gravelly coarse sand, gravelly coarse sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	0-25	40-95	35-90	0-80	0
Wallface, rocky, very bouldery--	0-4	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-9	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Wallface, rocky, very bouldery--	9-10	*Loamy sand, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand, fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	5-90	5
	10-18	*Loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, fine sandy loam	*SM, PT, SC-SM	*A-5, A-8, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	18-25	*Sandy loam, Gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, PT, SC-SM	*A-2, A-8, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10
	25-35	*Gravelly sandy loam, Gravelly fine sandy loam, fine sandy loam, sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-1, A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10
	35-38	*Fine sandy loam, Gravelly sandy loam, gravelly fine sandy loam, sandy loam, gravelly coarse sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	38-72	*Unweathered bedrock			0	0	---	---	---	-
975C: Andic Cryaquods, very bouldery--	0-7	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	7-11	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	11-13	*Sandy loam, Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
975C:										
Andic Cryaquods, very bouldery--	13-24	*Sandy loam, Gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-80	10
	24-36	*Sandy loam, Gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10
	36-72	*Gravelly loamy sand, Loamy sand, gravelly sand, sand, gravelly loamy coarse sand, very gravelly coarse sand, gravelly coarse sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	0-25	40-95	35-90	0-80	0
Esther, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-8	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	8-10	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	5-90	5
	10-22	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	22-28	*Gravelly fine sandy loam, Sandy loam, fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Esther, very bouldery-------	28-33	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam, gravelly coarse sandy loam	*SM, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	10-80	10
	33-72	*Gravelly loamy sand, Loamy sand, gravelly sand, sand, gravelly loamy coarse sand, very gravelly coarse sand, gravelly coarse sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	0-25	40-95	35-90	0-80	0
975D:										
Esther, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-8	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	8-10	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	5-90	5
	10-22	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	22-28	*Gravelly fine sandy loam, Sandy loam, fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
975D:										
Esther, very bouldery-------	28-33	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam, gravelly coarse sandy loam	*SM, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	10-80	10
	33-72	*Gravelly loamy sand, Loamy sand, gravelly sand, sand, gravelly loamy coarse sand, very gravelly coarse sand, gravelly coarse sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	0-25	40-95	35-90	0-80	0
Andic Cryaquods, very bouldery--	0-7	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	7-11	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	11-13	*Sandy loam, Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10
	13-24	*Sandy loam, Gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-80	10
	24-36	*Sandy loam, Gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10
	36-72	*Gravelly loamy sand, Loamy sand, gravelly sand, sand, gravelly loamy coarse sand, very gravelly coarse sand, gravelly coarse sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	0-25	40-95	35-90	0-80	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2(
	In				Pct	Pct				
992D: Wallface, very rocky, very bouldery-------	0-4	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-9	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	9-10	*Loamy sand, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loamy fine sand, fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	5-90	5
	10-18	*Loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, fine sandy loam	*SM, PT, SC-SM	*A-5, A-8, A-4, A-2	0-15	0-25	55-95	50-90	10-90	10
	18-25	*Sandy loam, Gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, gravelly coarse sandy loam, loam	*SM, PT, SC-SM	*A-2, A-8, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10
	25-35	*Gravelly sandy loam, Gravelly fine sandy loam, fine sandy loam, sandy loam, gravelly coarse sandy loam, loam	*SM, SC-SM	*A-1, A-2, A-4, A-5	0-15	0-25	55-95	50-90	10-90	10
	35-38	*Fine sandy loam, Gravelly sandy loam, gravelly fine sandy loam, sandy loam, gravelly coarse sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	38-72	*Unweathered bedrock			0	0	---	---	---	-
Skylight, very rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-5	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage passing sieve number-- 4	10	40	20
	In				Pct	Pct				
Skylight, very rocky, very bouldery-------	5-9	*Loamy sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	55-100	50-100	0-100	0
	9-15	*Loamy sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	55-100	50-100	0-100	0
	15-72	*Unweathered bedrock			0	0	---	---	---	-
993F: Santanoni, very rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly loamy sand, Very gravelly loamy coarse sand, gravelly loamy fine sand, very gravelly loamy sand, cobbly loamy coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	45-85	35-75	5-75	5
	3-7	*Stony loamy coarse sand, Very gravelly loamy coarse sand, very cobbly loamy coarse sand, gravelly loamy fine sand, gravelly loamy sand, very gravelly loamy sand, cobbly loamy coarse sand	*SM, GP-GM, GM	*A-1, A-2	0-15	0-25	45-85	35-75	5-75	5
	7-14	*Very gravelly loamy coarse sand, Very cobbly loamy coarse sand, cobbly loamy coarse sand, gravelly loamy fine sand, gravelly loamy sand, very gravelly loamy sand	*SW-SM, GP-GM, GM, SM	*A-1, A-2	0-15	0-25	45-85	35-75	5-75	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
993F:										
Santanoni, very rocky, very bouldery-------	14-31	*Very gravelly loamy coarse sand, Very cobbly loamy coarse sand, very stony loamy coarse sand, very gravelly coarse sand, very gravelly loamy sand, very gravelly sand, very gravelly loamy fine sand, very cobbly coarse sand	*GP-GM, GM, SM, SP	*A-1, A-2	1-25	3-35	30-75	20-65	0-65	0
	31-39	*Very stony coarse sand, Very cobbly loamy coarse sand, very gravelly loamy coarse sand, very gravelly coarse sand, very gravelly loamy sand, very gravelly sand, very gravelly loamy fine sand, very cobbly coarse sand	*SW-SM, GP-GM, GM, SM, SP	*A-1, A-2	1-25	3-35	30-75	20-65	0-65	0
	39-72	*Unweathered bedrock			0	0	---	---	---	-
Skylight, very rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-5	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	5-9	*Loamy sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	55-100	50-100	0-100	0
	9-15	*Loamy sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	55-100	50-100	0-100	0
	15-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
995D:										
Ricker, very rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-6	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	6-11	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	11-72	*Unweathered bedrock			0	0	---	---	---	-
Couchsachraga, very rocky, very bouldery--	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-9	*Coarse sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, loamy sand	*SW-SM, SM, GP-GM, GM, PT	*A-1, A-2, A-8	0-15	0-25	55-100	50-100	0-100	0
	9-72	*Unweathered bedrock			0	0	---	---	---	-
Skylight, very rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-5	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	5-9	*Loamy sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	55-100	50-100	0-100	0
	9-15	*Loamy sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	55-100	50-100	0-100	0
	15-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
995F:										
Ricker, very rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-6	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	6-11	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	11-72	*Unweathered bedrock			0	0	---	---	---	-
Couchsachraga, very rocky, very bouldery--	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-9	*Coarse sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, loamy sand	*SW-SM, SM, GP-GM, GM, PT	*A-1, A-2, A-8	0-15	0-25	55-100	50-100	0-100	0
	9-72	*Unweathered bedrock			0	0	---	---	---	-
Skylight, very rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-5	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	5-9	*Loamy sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	55-100	50-100	0-100	0
	9-15	*Loamy sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	55-100	50-100	0-100	0
	15-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
998F:										
Rock outcrop, very bouldery--	0-72	*Unweathered bedrock			0	0	---	---	---	-
Ricker, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-6	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	6-11	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	11-72	*Unweathered bedrock			0	0	---	---	---	-
Skylight, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-5	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	5-9	*Loamy sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	55-100	50-100	0-100	0
	9-15	*Loamy sand, Loamy coarse sand, loamy fine sand, gravelly loamy sand, gravelly loamy coarse sand, fine sand, sand, coarse sand	*SM, GP-GM, GM	*A-2, A-1	0-15	0-25	55-100	50-100	0-100	0
	15-72	*Unweathered bedrock			0	0	---	---	---	-
AdA:										
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Adams-----------	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
AdB:										
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
AdC:										
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
AdD:										
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
AdE:										
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
AkA:										
Adirondack, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0-5	0-10	100	100	90-100	80
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0-5	0-10	100	100	90-100	80
	4-6	*Fine sandy loam	*SM, ML	*A-4,	1-5	0-10	65-95	55-92	30-85	15

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
AkA:										
Adirondack, very bouldery-------	6-8	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	8-9	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	9-18	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	18-26	*Sandy loam, Gravelly fine sandy loam, stony loam	*SM, ML	*A-2, A-4	0-5	0-15	65-95	50-92	30-80	15
	26-34	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
	34-43	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
	43-72	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
AkB:										
Adirondack, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0-5	0-10	100	100	90-100	80
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0-5	0-10	100	100	90-100	80
	4-6	*Fine sandy loam	*SM, ML	*A-4,	1-5	0-10	65-95	55-92	30-85	15
	6-8	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	8-9	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15
	9-18	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, stony loam	*SM, ML	*A-4,	0-5	0-10	65-95	55-92	30-85	15

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
AkB:										
Adirondack, very bouldery-------	18-26	*Sandy loam, Gravelly fine sandy loam, stony loam	*SM, ML	*A-2, A-4	0-5	0-15	65-95	50-92	30-80	15
	26-34	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
	34-43	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
	43-72	*Gravelly loamy sand, Gravelly sandy loam, gravelly fine sandy loam	*SM, GM	*A-1-b, A-2-4, A-4	0-5	0-20	65-95	50-92	25-80	10
AmB:										
Amenia----------	0-9	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	9-14	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML, CL-ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	14-21	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML, CL-ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	21-36	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	36-48	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	48-72	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
AmC:										
Amenia----------	0-9	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	9-14	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML, CL-ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	14-21	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML, CL-ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	21-36	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	36-48	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	48-72	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
BcB:										
Becket----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
BcB:										
Becket----------	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
BcC:										
Becket----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
BeB:										
Becket, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
BeC:										
Becket, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
BeC: Becket, very bouldery-------	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
BeD: Becket, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
BeD: Becket, very bouldery-------	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
BeF: Becket, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
BkC: Becket, rocky, very bouldery--	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
BkC:										
Becket, rocky, very bouldery--	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
Tunbridge, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Tunbridge, rocky, very bouldery-------	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
BkD: Becket, rocky, very bouldery--	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, loamy sand	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	5-80	5
	3-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	9-18	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	18-33	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	33-47	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
	47-72	*Gravelly loamy sand, Gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-1, A-2	0-15	1-25	50-95	45-90	5-80	5
Tunbridge, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Tunbridge, rocky, very bouldery-------	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
BoB: Bombay----------	0-10	*Gravelly loam, Loam, gravelly fine sandy loam, fine sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	60-95	55-90	30-90	10
	10-18	*Gravelly loam, Loam, gravelly fine sandy loam, fine sandy loam	*SC-SM, SM, CL-ML	*A-4, A-2	0-15	0-25	60-95	55-90	30-90	10
	18-25	*Gravelly loam, Loam, gravelly fine sandy loam, fine sandy loam	*SC-SM, SM, CL-ML	*A-4, A-2	0-15	0-25	60-95	55-90	30-90	10
	25-36	*Gravelly loam, Loam, gravelly fine sandy loam, fine sandy loam	*SC-SM, SM, CL-ML	*A-4, A-2	0-15	0-25	60-95	55-90	30-90	10
	36-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly loam, loam	*SM, SC-SM, GM, CL-ML	*A-2, A-4, A-1	0-15	0-25	55-90	50-85	25-85	10
BuA: Bucksport-------	0-7	*Mucky peat	*PT,	*A-8,	0	0	---	---	---	-
	7-31	*Muck	*PT,	*A-8,	0	0	---	---	---	-
	31-47	*Muck	*PT,	*A-8,	0	0	---	---	---	-
	47-72	*Muck	*PT,	*A-8,	0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
BvA:										
Burnt Vly-------	0-10	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	10-15	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	15-24	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	24-34	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	34-56	*Loamy fine sand, Loamy sand, sand, gravelly loamy sand, cobbly loamy sand, gravelly sand, gravelly coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-2, A-1, A-3	0-15	0-25	55-100	50-100	0-100	0
	56-72	*Very fine sandy loam, Loamy fine sand, loamy sand, sand, gravelly loamy sand, cobbly loamy sand, gravelly sand, gravelly coarse sand	*ML, SM, SP-SM, GM, GP-GM, SP, GP	*A-4, A-2, A-3, A-1	0-15	0-25	55-100	50-100	0-100	0
CaA:										
Catden----------	0-3	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	3-6	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	6-37	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	37-46	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	46-71	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	71-80	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
CbA:										
Colton, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CbA: Colton, very										
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
CbB: Colton, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
CbB: Colton, very bouldery-------	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
CbC: Colton, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CbD:										
Colton, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
CgB:										
Cayuga----------	0-8	*Silty clay loam, Loam	*CL, MH, ML, OL	*A-6, A-7, A-4	0	0	90-100	85-100	45-100	45
	8-14	*Silty clay loam, Clay loam, loam	*CL, CH	*A-6, A-7	0	0	90-100	85-100	45-100	45
	14-19	*Clay, Silty clay, silty clay loam, clay loam	*CL, CH	*A-7, A-6	0	0	90-100	85-100	45-100	45
	19-24	*Clay, Silty clay, silty clay loam, clay loam	*CL, CH	*A-7, A-6	0	0	90-100	85-100	45-100	45

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
CgB:										
Cayuga----------	24-28	*Clay loam, Clay, silty clay, silty clay loam	*CL, CH	*A-6, A-7	0	0	90-100	85-100	45-100	45
	28-72	*Gravelly silt loam, Gravelly fine sandy loam, gravelly loam, fine sandy loam, loam	*ML, SM, GM, SC, GC	*A-4, A-2	0-15	0-25	55-90	50-85	25-85	10
CgC:										
Cayuga----------	0-8	*Silty clay loam, Loam	*CL, MH, ML, OL	*A-6, A-7, A-4	0	0	90-100	85-100	45-100	45
	8-14	*Silty clay loam, Clay loam, loam	*CL, CH	*A-6, A-7	0	0	90-100	85-100	45-100	45
	14-19	*Clay, Silty clay, silty clay loam, clay loam	*CL, CH	*A-7, A-6	0	0	90-100	85-100	45-100	45
	19-24	*Clay, Silty clay, silty clay loam, clay loam	*CL, CH	*A-7, A-6	0	0	90-100	85-100	45-100	45
	24-28	*Clay loam, Clay, silty clay, silty clay loam	*CL, CH	*A-6, A-7	0	0	90-100	85-100	45-100	45
	28-72	*Gravelly silt loam, Gravelly fine sandy loam, gravelly loam, fine sandy loam, loam	*ML, SM, GM, SC, GC	*A-4, A-2	0-15	0-25	55-90	50-85	25-85	10
ChB:										
Champlain-------	0-7	*Loamy sand, Sand, loamy fine sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	7-10	*Loamy sand, Sand, loamy fine sand, fine sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	10-16	*Sand, Loamy sand, loamy fine sand, fine sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	16-24	*Fine sand, Loamy fine sand, sand, loamy sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	24-35	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	35-50	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	50-72	*Sand, Loamy sand, loamy fine sand, fine sand	*SP-SM, SM, SW-SM	*A-3, A-2	0	0	90-100	85-100	0-100	0
ChC:										
Champlain-------	0-7	*Loamy sand, Sand, loamy fine sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	7-10	*Loamy sand, Sand, loamy fine sand, fine sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
ChC:										
Champlain-------	10-16	*Sand, Loamy sand, loamy fine sand, fine sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	16-24	*Fine sand, Loamy fine sand, sand, loamy sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	24-35	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	35-50	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	50-72	*Sand, Loamy sand, loamy fine sand, fine sand	*SP-SM, SM, SW-SM	*A-3, A-2	0	0	90-100	85-100	0-100	0
ChD:										
Champlain-------	0-7	*Loamy sand, Sand, loamy fine sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	7-10	*Loamy sand, Sand, loamy fine sand, fine sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	10-16	*Sand, Loamy sand, loamy fine sand, fine sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	16-24	*Fine sand, Loamy fine sand, sand, loamy sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	24-35	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	35-50	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	50-72	*Sand, Loamy sand, loamy fine sand, fine sand	*SP-SM, SM, SW-SM	*A-3, A-2	0	0	90-100	85-100	0-100	0
ChE:										
Champlain-------	0-7	*Loamy sand, Sand, loamy fine sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	7-10	*Loamy sand, Sand, loamy fine sand, fine sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	10-16	*Sand, Loamy sand, loamy fine sand, fine sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	16-24	*Fine sand, Loamy fine sand, sand, loamy sand	*SP-SM, SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	24-35	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	35-50	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	50-72	*Sand, Loamy sand, loamy fine sand, fine sand	*SP-SM, SM, SW-SM	*A-3, A-2	0	0	90-100	85-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CkA:										
Charles---------	0-9	*Silt loam, Very fine sandy loam	*ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	9-16	*Silt loam, Very fine sandy loam	*ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	16-28	*Silt loam, Very fine sandy loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	28-38	*Silt loam, Very fine sandy loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	38-46	*Very fine sandy loam, Silt loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	46-52	*Loamy fine sand, Silt loam, loamy very fine sand, loamy sand, very fine sandy loam, fine sand	*SM, ML, CL-ML	*A-2, A-4	0	0	80-100	75-100	10-100	0
	52-72	*Loamy sand, Silt loam, loamy very fine sand, loamy fine sand, very fine sandy loam, fine sand	*SM, ML, CL-ML	*A-2, A-4	0	0	80-100	75-100	10-100	0
ClB:										
Charlton--------	0-5	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	5-11	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	11-19	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-36	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
ClB:										
Charlton--------	36-45	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	45-72	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
ClC:										
Charlton--------	0-5	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	5-11	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	11-19	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-36	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	36-45	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	45-72	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
ClD:										
Charlton--------	0-5	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	5-11	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	11-19	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-36	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	36-45	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	45-72	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
CnC:										
Charlton, rocky, very stony-----	0-5	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	5-11	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	11-19	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CnC:										
Charlton, rocky, very stony-----	19-36	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	36-45	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	45-72	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
Chatfield, rocky, very stony----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-7	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	7-19	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-1, A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-27	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	27-32	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	32-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CnD:										
Charlton, rocky, very stony-----	0-5	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	5-11	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	11-19	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-36	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	36-45	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	45-72	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
Chatfield, rocky, very stony----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-7	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	7-19	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-1, A-2, A-4	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Chatfield, rocky, very stony----------	19-27	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	27-32	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	32-72	*Unweathered bedrock			0	0	---	---	---	-
CoB: Chatfield, very rocky, very stony----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-7	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	7-19	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-1, A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-27	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	27-32	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	32-72	*Unweathered bedrock			0	0	---	---	---	-
Hollis, very rocky, very stony----------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
Hollis, very rocky, very stony----------	2-6	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	6-13	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	13-72	*Unweathered bedrock			0	0	---	---	---	-
CoC: Chatfield, very rocky, very stony----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-7	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	7-19	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-1, A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-27	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	27-32	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	32-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Hollis, very rocky, very stony----------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-6	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	6-13	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	13-72	*Unweathered bedrock			0	0	---	---	---	-
CoD: Chatfield, very rocky, very stony----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-7	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	7-19	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-1, A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-27	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	27-32	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	32-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Hollis, very rocky, very stony----------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-6	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	6-13	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	13-72	*Unweathered bedrock			0	0	---	---	---	-
CoF:										
Chatfield, very rocky, very stony----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-7	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	7-19	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-1, A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-27	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	27-32	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	32-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Hollis, very rocky, very stony----------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-6	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	6-13	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	13-72	*Unweathered bedrock			0	0	---	---	---	-
CpB:										
Churchville-----	0-9	*Loam, Silty clay loam	*ML, OL	*A-4,	0	0	90-100	85-100	45-100	45
	9-13	*Clay, Silty clay, silty clay loam, clay loam	*CL, CH	*A-6, A-7	0	0	90-100	85-100	45-100	45
	13-25	*Clay, Silty clay, silty clay loam, clay loam	*CL, CH	*A-7, A-6	0	0	90-100	85-100	45-100	45
	25-35	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam	*SM, GM, ML	*A-2-4, A-4, A-2	0-15	0-25	55-90	50-85	25-85	10
	35-48	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam	*SM, GM, ML	*A-2-4, A-2, A-4	0-15	0-25	55-90	50-85	25-85	10
	48-72	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML	*A-4, A-2	0-15	0-25	55-90	50-85	25-85	10
CqA:										
Claverack-------	0-12	*Loamy fine sand, Fine sandy loam	*SM,	*A-2, A-4, A-1	0	0	100	90-100	50-100	10
	12-16	*Fine sand, Loamy fine sand, sand, loamy sand	*SP-SM, SM, SW, SW-SM	*A-3, A-2, A-4, A-1	0	0	100	90-100	0-100	0
	16-22	*Fine sand, Loamy fine sand, sand, loamy sand	*SP-SM, SM, SW, SW-SM	*A-3, A-2, A-4, A-1	0	0	100	90-100	0-100	0
	22-26	*Fine sand, Loamy fine sand, sand, loamy sand	*SP-SM, SM, SP, SW, SW-SM	*A-3, A-2, A-4, A-1	0	0	100	90-100	0-100	0
	26-72	*Clay, Silty clay, silty clay loam	*CH, CL-ML, CL	*A-7, A-6, A-4	0	0	100	97-100	50-100	50

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CqB:										
Claverack-------	0-12	*Loamy fine sand, Fine sandy loam	*SM,	*A-2, A-4, A-1	0	0	100	90-100	50-100	10
	12-16	*Fine sand, Loamy fine sand, sand, loamy sand	*SP-SM, SM, SW, SW-SM	*A-3, A-2, A-4, A-1	0	0	100	90-100	0-100	0
	16-22	*Fine sand, Loamy fine sand, sand, loamy sand	*SP-SM, SM, SW, SW-SM	*A-3, A-2, A-4, A-1	0	0	100	90-100	0-100	0
	22-26	*Fine sand, Loamy fine sand, sand, loamy sand	*SP-SM, SM, SP, SW, SW-SM	*A-3, A-2, A-4, A-1	0	0	100	90-100	0-100	0
	26-72	*Clay, Silty clay, silty clay loam	*CH, CL-ML, CL	*A-7, A-6, A-4	0	0	100	97-100	50-100	50
CrB:										
Collamer--------	0-11	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	11-16	*Silty clay loam, Silt loam, very fine sandy loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	25
	16-25	*Silty clay loam, Silt loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	25-35	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	35-72	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
CsA:										
Colton----------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
CsA:										
Colton----------	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
CsB:										
Colton----------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
Colton----------	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CsB:										
Colton----------	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
CsC:										
Colton----------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CsD:										
Colton----------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0
	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
CsE:										
Colton----------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Very gravelly loamy sand, Very gravelly loamy coarse sand, very gravelly sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-100	30-90	0-80	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CsE: Colton----------	3-6	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, GP, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	6-13	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	13-21	*Very gravelly loamy sand, Very gravelly sand, very gravelly loamy coarse sand, very gravelly coarse sand, gravelly loamy sand	*GP-GM, GM, SM, SP	*A-1, A-2	0-10	0-20	40-90	30-80	0-70	0
	21-72	*Extremely gravelly coarse sand, Very gravelly loamy sand, very gravelly sand, very cobbly sand	*GP, GW, SW	*A-1,	0-15	5-45	30-80	20-70	0-65	0
CtA: Cornish---------	0-12	*Silt loam, Very fine sandy loam	*ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	12-21	*Silt loam, Very fine sandy loam	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	21-35	*Silt loam, Very fine sandy loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	35-42	*Very fine sandy loam, Silt loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	42-48	*Loamy sand, Silt loam, loamy very fine sand, loamy fine sand, very fine sandy loam, fine sand	*SM, ML, CL-ML	*A-2, A-4	0	0	80-100	75-100	10-100	0
	48-53	*Silt loam, Loamy sand, loamy very fine sand, loamy fine sand, very fine sandy loam, fine sand	*ML, SM, CL-ML	*A-4, A-2	0	0	80-100	75-100	10-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CtA:										
Cornish----------	53-72	*Loamy fine sand, Silt loam, loamy very fine sand, loamy sand, very fine sandy loam, fine sand	*SM, ML, CL-ML	*A-2, A-4	0	0	80-100	75-100	10-100	0
CuA:										
Cosad------------	0-12	*Loamy fine sand, Fine sandy loam	*SM,	*A-2, A-4, A-1	0	0	100	90-100	50-100	10
	12-18	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM, SW, SW-SM	*A-2, A-3, A-4, A-1	0	0	100	90-100	0-100	0
	18-23	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM, SW, SW-SM	*A-2, A-3, A-4, A-1	0	0	100	90-100	0-100	0
	23-25	*Loamy fine sand, Fine sand, sand, loamy sand	*SM, SP-SM, SP, SW, SW-SM	*A-4, A-2, A-3, A-1	0	0	100	90-100	0-100	0
	25-39	*Clay, Silty clay, silty clay loam	*ML, CL, CL-ML	*A-7, A-6, A-4	0	0	100	97-100	50-100	50
	39-72	*Clay, Silty clay, silty clay loam	*CH, CL, CL-ML	*A-7, A-6, A-4	0	0	100	97-100	50-100	50
CuB:										
Cosad------------	0-12	*Loamy fine sand, Fine sandy loam	*SM,	*A-2, A-4, A-1	0	0	100	90-100	50-100	10
	12-18	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM, SW, SW-SM	*A-2, A-3, A-4, A-1	0	0	100	90-100	0-100	0
	18-23	*Fine sand, Loamy fine sand, sand, loamy sand	*SM, SP-SM, SW, SW-SM	*A-2, A-3, A-4, A-1	0	0	100	90-100	0-100	0
	23-25	*Loamy fine sand, Fine sand, sand, loamy sand	*SM, SP-SM, SP, SW, SW-SM	*A-4, A-2, A-3, A-1	0	0	100	90-100	0-100	0
	25-39	*Clay, Silty clay, silty clay loam	*ML, CL, CL-ML	*A-7, A-6, A-4	0	0	100	97-100	50-100	50
	39-72	*Clay, Silty clay, silty clay loam	*CH, CL, CL-ML	*A-7, A-6, A-4	0	0	100	97-100	50-100	50
CvA:										
Covington--------	0-9	*Clay, Silty clay, silty clay loam, clay loam	*ML, CL	*A-7, A-6	0	0	100	97-100	50-100	50
	9-19	*Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	19-24	*Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	24-36	*Clay, Silty clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	36-72	*Clay, Silty clay	*CH, CL, MH	*A-7,	0	0	100	97-100	50-100	50

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
CwA: Croghan---------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	95-100	90-100	0-100	0
	3-5	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	95-100	90-100	0-100	0
	5-8	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	80-100	75-100	0-100	0
	8-14	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SM	*A-3, A-2	0	0	80-100	75-100	0-100	0
	14-23	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
	23-29	*Sand, Loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
	29-42	*Sand, Loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
	42-45	*Stratified loamy fine sand to fine sandy loam, Sand, loamy sand, fine sand, loamy fine sand, coarse sand	*SM, SW-SM, SP, SP-SM, SW	*A-2, A-3, A-1	0	0	80-100	75-100	0-100	0
	45-72	*Stratified sand to fine sand to coarse sand, Sand, loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
CwB: Croghan---------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	95-100	90-100	0-100	0
	3-5	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	95-100	90-100	0-100	0
	5-8	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	80-100	75-100	0-100	0
	8-14	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SM	*A-3, A-2	0	0	80-100	75-100	0-100	0
	14-23	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
	23-29	*Sand, Loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
CwB:										
Croghan---------	29-42	*Sand, Loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
	42-45	*Stratified loamy fine sand to fine sandy loam, Sand, loamy sand, fine sand, loamy fine sand, coarse sand	*SM, SW-SM, SP, SP-SM, SW	*A-2, A-3, A-1	0	0	80-100	75-100	0-100	0
	45-72	*Stratified sand to fine sand to coarse sand, Sand, loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	80-100	75-100	0-100	0
DeA:										
Deerfield-------	0-10	*Loamy sand, Loamy fine sand, fine sandy loam	*SM, SP-SM	*A-2, A-4, A-1	0	0	90-100	85-100	10-100	10
	10-15	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	15-30	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	30-72	*Sand, Fine sand, coarse sand	*SP-SM, SP, SM	*A-3, A-2, A-1	0	0-9	80-100	75-100	0-100	0
DeB:										
Deerfield-------	0-10	*Loamy sand, Loamy fine sand, fine sandy loam	*SM, SP-SM	*A-2, A-4, A-1	0	0	90-100	85-100	10-100	10
	10-15	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	15-30	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	30-72	*Sand, Fine sand, coarse sand	*SP-SM, SP, SM	*A-3, A-2, A-1	0	0-9	80-100	75-100	0-100	0
DpC:										
Depeyster-------	0-4	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	4-7	*Silt loam, Very fine sandy loam	*CL-ML, CL	*A-4,	0	0	95-100	90-100	45-100	25
	7-13	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	13-18	*Silt loam, Silty clay loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	45
	18-25	*Silt loam, Silty clay loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	45

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
DpC:										
Depeyster-------	25-31	*Silt loam, Silty clay loam, very fine sandy loam	*CL-ML, CL, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	31-72	*Silt loam, Silty clay loam, very fine sandy loam	*CL-ML, CL, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
DpD:										
Depeyster-------	0-4	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	4-7	*Silt loam, Very fine sandy loam	*CL-ML, CL	*A-4,	0	0	95-100	90-100	45-100	25
	7-13	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	13-18	*Silt loam, Silty clay loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	45
	18-25	*Silt loam, Silty clay loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	45
	25-31	*Silt loam, Silty clay loam, very fine sandy loam	*CL-ML, CL, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	31-72	*Silt loam, Silty clay loam, very fine sandy loam	*CL-ML, CL, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
DuC:										
Dunkirk---------	0-6	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	6-10	*Silt loam, Very fine sandy loam	*CL, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	10-15	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	15-21	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	21-29	*Silty clay loam, Silt loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	29-35	*Silt loam, Silty clay loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	35-42	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	42-72	*Silty clay loam, Silt loam, very fine sandy loam	*CL, CL-ML, ML	*A-6, A-4	0	0	95-100	90-100	45-100	25

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
DuD:										
Dunkirk---------	0-6	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	6-10	*Silt loam, Very fine sandy loam	*CL, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	10-15	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	15-21	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	21-29	*Silty clay loam, Silt loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	29-35	*Silt loam, Silty clay loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	35-42	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	42-72	*Silty clay loam, Silt loam, very fine sandy loam	*CL, CL-ML, ML	*A-6, A-4	0	0	95-100	90-100	45-100	25
DuE:										
Dunkirk---------	0-6	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	6-10	*Silt loam, Very fine sandy loam	*CL, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	10-15	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	15-21	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	21-29	*Silty clay loam, Silt loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	29-35	*Silt loam, Silty clay loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	35-42	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	42-72	*Silty clay loam, Silt loam, very fine sandy loam	*CL, CL-ML, ML	*A-6, A-4	0	0	95-100	90-100	45-100	25

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
DxB:										
Duxbury---------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Fine sandy loam, Very fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-5	0-10	75-100	70-100	40-100	10
	4-5	*Fine sandy loam, Very fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-5	0-10	75-100	70-100	40-100	10
	5-13	*Fine sandy loam, Very fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-5	0-10	75-100	70-100	40-100	10
	13-21	*Fine sandy loam, Very fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-10	75-100	70-100	40-100	10
	21-31	*Gravelly sand, Gravelly coarse sand, extremely gravelly coarse sand, very gravelly coarse sand, very gravelly sand, gravelly loamy sand	*SP-SM, GP, GW, SW	*A-1,	0-10	0-15	30-85	20-75	0-70	0
	31-36	*Gravelly coarse sand, Gravelly sand, extremely gravelly coarse sand, very gravelly coarse sand, very gravelly sand, gravelly loamy sand	*SW-SM, GP, GW, SW	*A-1,	0-10	0-15	30-85	20-75	0-70	0
	36-72	*Very gravelly coarse sand, Very gravelly sand, extremely gravelly coarse sand, gravelly sand, gravelly coarse sand, gravelly loamy sand	*SW-SM, GP, GW, SW	*A-1,	0-10	0-25	30-85	20-75	0-70	0
ElB:										
Elmridge--------	0-8	*Fine sandy loam, Sandy loam, loam	*SM, ML	*A-4, A-2	0	0	95-100	90-100	45-100	10
	8-15	*Fine sandy loam, Sandy loam, loam	*SM, ML	*A-4, A-2	0	0	95-100	90-100	45-100	10
	15-25	*Loam, Fine sandy loam, sandy loam	*ML, SM	*A-4, A-2	0	0	95-100	90-100	45-100	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
ElB:										
Elmridge--------	25-31	*Silty clay loam, Silty clay	*CL, CH	*A-6, A-7	0	0	100	97-100	70-100	70
	31-46	*Silty clay loam, Silty clay, clay	*CL, CH	*A-6, A-7	0	0	100	97-100	50-100	50
	46-72	*Silty clay, Silty clay loam, clay	*ML, CL, CH	*A-7, A-6	0	0	100	97-100	50-100	50
FaD:										
Farmington, very rocky, very stony----------	0-6	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam, silt loam, gravelly silt loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	6-13	*Gravelly loam, Loam, fine sandy loam, gravelly fine sandy loam, silt loam, gravelly silt loam	*SC-SM, SM, ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	13-72	*Unweathered bedrock			0	0	---	---	---	-
FcB:										
Factoryville----	0-11	*Loamy fine sand, Fine sand, loamy sand, sand	*SM,	*A-2, A-3	0	0	100	95-100	0-100	0
	11-19	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	19-29	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	29-33	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	33-65	*Fine sand, Loamy fine sand, loamy sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	95-100	0-100	0
	65-72	*Fine sand, Loamy fine sand, loamy sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	95-100	0-100	0
Colonie, calcareous substratum-----	0-9	*Loamy fine sand	*SM,	*A-2,	0	0	100	90-100	70-100	10
	9-14	*Loamy fine sand, Fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	100	90-100	70-100	0
	14-25	*Fine sand, Loamy fine sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	100	90-100	70-100	0
	25-37	*Fine sand, Loamy fine sand, fine sandy loam	*SM, SP-SM	*A-2, A-3, A-4	0	0	100	90-100	50-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Colonie, calcareous substratum-----	37-49	*Fine sand, Loamy fine sand, fine sandy loam	*SM, SP-SM	*A-2, A-3, A-4	0	0	100	90-100	50-100	0
	49-56	*Fine sand, Loamy fine sand, sand, gravelly sand, coarse sand, gravelly coarse sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	60-100	50-100	0-100	0
	56-61	*Fine sand, Loamy fine sand, sand, gravelly sand, coarse sand, gravelly coarse sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	60-100	50-100	0-100	0
	61-72	*Fine sand, Loamy fine sand, sand, gravelly sand, coarse sand, gravelly coarse sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	60-100	50-100	0-100	0
FcC: Factoryville----	0-11	*Loamy fine sand, Fine sand, loamy sand, sand	*SM,	*A-2, A-3	0	0	100	95-100	0-100	0
	11-19	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	19-29	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	29-33	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	33-65	*Fine sand, Loamy fine sand, loamy sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	95-100	0-100	0
	65-72	*Fine sand, Loamy fine sand, loamy sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	95-100	0-100	0
Colonie, calcareous substratum-----	0-9	*Loamy fine sand	*SM,	*A-2,	0	0	100	90-100	70-100	10
	9-14	*Loamy fine sand, Fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	100	90-100	70-100	0
	14-25	*Fine sand, Loamy fine sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	100	90-100	70-100	0
	25-37	*Fine sand, Loamy fine sand, fine sandy loam	*SM, SP-SM	*A-2, A-3, A-4	0	0	100	90-100	50-100	0
	37-49	*Fine sand, Loamy fine sand, fine sandy loam	*SM, SP-SM	*A-2, A-3, A-4	0	0	100	90-100	50-100	0
	49-56	*Fine sand, Loamy fine sand, sand, gravelly sand, coarse sand, gravelly coarse sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	60-100	50-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Colonie, calcareous substratum-----	56-61	*Fine sand, Loamy fine sand, sand, gravelly sand, coarse sand, gravelly coarse sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	60-100	50-100	0-100	0
	61-72	*Fine sand, Loamy fine sand, sand, gravelly sand, coarse sand, gravelly coarse sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	60-100	50-100	0-100	0
FcD:										
Factoryville----	0-11	*Loamy fine sand, Fine sand, loamy sand, sand	*SM,	*A-2, A-3	0	0	100	95-100	0-100	0
	11-19	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	19-29	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	29-33	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	33-65	*Fine sand, Loamy fine sand, loamy sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	95-100	0-100	0
	65-72	*Fine sand, Loamy fine sand, loamy sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	95-100	0-100	0
Colonie, calcareous substratum-----	0-9	*Loamy fine sand	*SM,	*A-2,	0	0	100	90-100	70-100	10
	9-14	*Loamy fine sand, Fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	100	90-100	70-100	0
	14-25	*Fine sand, Loamy fine sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	100	90-100	70-100	0
	25-37	*Fine sand, Loamy fine sand, fine sandy loam	*SM, SP-SM	*A-2, A-3, A-4	0	0	100	90-100	50-100	0
	37-49	*Fine sand, Loamy fine sand, fine sandy loam	*SM, SP-SM	*A-2, A-3, A-4	0	0	100	90-100	50-100	0
	49-56	*Fine sand, Loamy fine sand, sand, gravelly sand, coarse sand, gravelly coarse sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	60-100	50-100	0-100	0
	56-61	*Fine sand, Loamy fine sand, sand, gravelly sand, coarse sand, gravelly coarse sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	60-100	50-100	0-100	0
	61-72	*Fine sand, Loamy fine sand, sand, gravelly sand, coarse sand, gravelly coarse sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	60-100	50-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
FdF:										
Factoryville----	0-11	*Loamy fine sand, Fine sand, loamy sand, sand	*SM,	*A-2, A-3	0	0	100	95-100	0-100	0
	11-19	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	19-29	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	29-33	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	33-65	*Fine sand, Loamy fine sand, loamy sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	95-100	0-100	0
	65-72	*Fine sand, Loamy fine sand, loamy sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	95-100	0-100	0
Dunkirk---------	0-6	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	6-10	*Silt loam, Very fine sandy loam	*CL, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	10-15	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	15-21	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	21-29	*Silty clay loam, Silt loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	29-35	*Silt loam, Silty clay loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	35-42	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	42-72	*Silty clay loam, Silt loam, very fine sandy loam	*CL, CL-ML, ML	*A-6, A-4	0	0	95-100	90-100	45-100	25
FgB:										
Farmington, very rocky, very stony----------	0-6	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam, silt loam, gravelly silt loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	6-13	*Gravelly loam, Loam, fine sandy loam, gravelly fine sandy loam, silt loam, gravelly silt loam	*SC-SM, SM, ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	13-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage passing sieve number-- 4	10	40	2
	In				Pct	Pct				
Galway, very rocky, very stony----------	0-5	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam, silt loam, gravelly silt loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	5-9	*Fine sandy loam, Loam, gravelly fine sandy loam, gravelly loam, silt loam, gravelly silt loam	*SM, SC-SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	9-18	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam, silt loam, gravelly silt loam	*SM, SC-SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	18-35	*Gravelly fine sandy loam, Fine sandy loam, gravelly loam, loam, silt loam, gravelly silt loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-10	0-25	55-95	50-90	25-90	10
	35-72	*Unweathered bedrock			0	0	---	---	---	-
FkF: Farmington, very stony----------	0-6	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam, silt loam, gravelly silt loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	6-13	*Gravelly loam, Loam, fine sandy loam, gravelly fine sandy loam, silt loam, gravelly silt loam	*SC-SM, SM, ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	13-72	*Unweathered bedrock			0	0	---	---	---	-
Rock outcrop, very stony-----	0-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 2
	In				Pct	Pct				
FnB:										
Fernlake, very bouldery-------	0-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Loamy fine sand, Gravelly loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand	*SM, GM	*A-2, A-1, A-4	0-15	1-25	60-95	55-90	5-90	5
	4-8	*Loamy fine sand, Gravelly loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, sandy loam, gravelly sandy loam	*SM, GM	*A-2, A-1, A-4	0-15	1-25	60-95	55-90	5-90	5
	8-19	*Gravelly loamy fine sand, Loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, gravelly sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	0-90	0
	19-33	*Gravelly loamy fine sand, Loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, gravelly sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	0-90	0
	33-41	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand	*SM, GP, GM, GP-GM, SP, SP-SM	*A-2, A-1, A-3	0-15	1-25	50-95	45-90	0-90	0
	41-57	*Cobbly loamy sand, Loamy sand, gravelly loamy sand, loamy fine sand, sand, gravelly sand	*SM, GP, GM, GP-GM, SP, SP-SM	*A-2, A-1, A-3	0-15	1-25	50-95	45-90	0-90	0
	57-72	*Sand, Loamy sand, cobbly loamy sand, loamy fine sand, gravelly loamy sand, gravelly sand	*SP-SM, GP, GM, GP-GM, SM, SP	*A-3, A-2, A-1	0-15	1-25	50-95	45-90	0-90	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
FnC: Fernlake, very bouldery-------	0-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---
	2-4	*Loamy fine sand, Gravelly loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand	*SM, GM	*A-2, A-1, A-4	0-15	1-25	60-95	55-90	5-90
	4-8	*Loamy fine sand, Gravelly loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, sandy loam, gravelly sandy loam	*SM, GM	*A-2, A-1, A-4	0-15	1-25	60-95	55-90	5-90
	8-19	*Gravelly loamy fine sand, Loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, gravelly sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	0-90
	19-33	*Gravelly loamy fine sand, Loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, gravelly sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	0-90
	33-41	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand	*SM, GP, GM, GP-GM, SP, SP-SM	*A-2, A-1, A-3	0-15	1-25	50-95	45-90	0-90
	41-57	*Cobbly loamy sand, Loamy sand, gravelly loamy sand, loamy fine sand, sand, gravelly sand	*SM, GP, GM, GP-GM, SP, SP-SM	*A-2, A-1, A-3	0-15	1-25	50-95	45-90	0-90
	57-72	*Sand, Loamy sand, cobbly loamy sand, loamy fine sand, gravelly loamy sand, gravelly sand	*SP-SM, GP, GM, GP-GM, SM, SP	*A-3, A-2, A-1	0-15	1-25	50-95	45-90	0-90

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
FnD: Fernlake, very bouldery-------	0-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Loamy fine sand, Gravelly loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand	*SM, GM	*A-2, A-1, A-4	0-15	1-25	60-95	55-90	5-90	5
	4-8	*Loamy fine sand, Gravelly loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, sandy loam, gravelly sandy loam	*SM, GM	*A-2, A-1, A-4	0-15	1-25	60-95	55-90	5-90	5
	8-19	*Gravelly loamy fine sand, Loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, gravelly sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	0-90	0
	19-33	*Gravelly loamy fine sand, Loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, gravelly sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	0-90	0
	33-41	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand	*SM, GP, GM, GP-GM, SP, SP-SM	*A-2, A-1, A-3	0-15	1-25	50-95	45-90	0-90	0
	41-57	*Cobbly loamy sand, Loamy sand, gravelly loamy sand, loamy fine sand, sand, gravelly sand	*SM, GP, GM, GP-GM, SP, SP-SM	*A-2, A-1, A-3	0-15	1-25	50-95	45-90	0-90	0
	57-72	*Sand, Loamy sand, cobbly loamy sand, loamy fine sand, gravelly loamy sand, gravelly sand	*SP-SM, GP, GM, GP-GM, SM, SP	*A-3, A-2, A-1	0-15	1-25	50-95	45-90	0-90	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
FnF: Fernlake, very bouldery-------	0-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Loamy fine sand, Gravelly loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand	*SM, GM	*A-2, A-1, A-4	0-15	1-25	60-95	55-90	5-90	5
	4-8	*Loamy fine sand, Gravelly loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, sandy loam, gravelly sandy loam	*SM, GM	*A-2, A-1, A-4	0-15	1-25	60-95	55-90	5-90	5
	8-19	*Gravelly loamy fine sand, Loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, gravelly sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	0-90	0
	19-33	*Gravelly loamy fine sand, Loamy fine sand, loamy sand, gravelly loamy sand, cobbly loamy sand, gravelly sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	0-90	0
	33-41	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand	*SM, GP, GM, GP-GM, SP, SP-SM	*A-2, A-1, A-3	0-15	1-25	50-95	45-90	0-90	0
	41-57	*Cobbly loamy sand, Loamy sand, gravelly loamy sand, loamy fine sand, sand, gravelly sand	*SM, GP, GM, GP-GM, SP, SP-SM	*A-2, A-1, A-3	0-15	1-25	50-95	45-90	0-90	0
	57-72	*Sand, Loamy sand, cobbly loamy sand, loamy fine sand, gravelly loamy sand, gravelly sand	*SP-SM, GP, GM, GP-GM, SM, SP	*A-3, A-2, A-1	0-15	1-25	50-95	45-90	0-90	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
FrB:										
Factoryville----	0-11	*Loamy fine sand, Fine sand, loamy sand, sand	*SM,	*A-2, A-3	0	0	100	95-100	0-100	0
	11-19	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	19-29	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	29-33	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	100	95-100	0-100	0
	33-65	*Fine sand, Loamy fine sand, loamy sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	95-100	0-100	0
	65-72	*Fine sand, Loamy fine sand, loamy sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	95-100	0-100	0
FuA:										
Fluvaquents, frequently flooded--------	0-5	*Very fine sandy loam, Fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*ML, SM, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0
	5-9	*Fine sandy loam, Very fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0
	9-21	*Very fine sandy loam, Fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*ML, SM, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Fluvaquents, frequently flooded--------	21-30	*Very fine sandy loam, Fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*ML, SM, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0
	30-42	*Fine sandy loam, Very fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0
	42-72	*Very gravelly sand, Fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very fine sandy loam, very gravelly coarse sand, extremely gravelly coarse sand	*GP, GW, ML, SM, SP	*A-1, A-2, A-4	0-20	0-40	25-100	20-100	0-100	0
Udifluvents, frequently flooded--------	0-4	*Loamy fine sand, Fine sandy loam, sandy loam, loamy very fine sand, very fine sandy loam, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GP, GW	*A-2, A-4, A-1	0-20	0-40	25-100	20-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Udifluvents, frequently flooded--------	4-6	*Fine sandy loam, Very fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0
	6-10	*Fine sandy loam, Very fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GW, GP	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0
	10-12	*Fine sandy loam, Very fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0
	12-24	*Fine sandy loam, Very fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Udifluvents, frequently flooded--------	24-28	*Fine sandy loam, Very fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GW, GP	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0
	28-34	*Loamy fine sand, Fine sandy loam, sandy loam, loamy very fine sand, very fine sandy loam, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GP, GW	*A-2, A-4, A-1	0-20	0-40	25-100	20-100	0-100	0
	34-38	*Fine sandy loam, Very fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0
	38-44	*Fine sandy loam, Very fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0
	44-56	*Fine sandy loam, Very fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very gravelly coarse sand, extremely gravelly coarse sand	*SM, ML, SP, GP, GW	*A-4, A-2, A-1	0-20	0-40	25-100	20-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Udifluvents, frequently flooded--------	56-72	*Very gravelly coarse sand, Fine sandy loam, sandy loam, loamy very fine sand, loamy fine sand, sand, gravelly sand, very gravelly sand, very fine sandy loam, extremely gravelly coarse sand	*GP-GM, GP, GW, ML, SM, SP	*A-1, A-2, A-4	0-20	0-40	25-100	20-100	0-100	0
GeB: Georgia---------	0-9	*Loam, Gravelly loam, silt loam, gravelly silt loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	25
	9-15	*Loam, Fine sandy loam, gravelly fine sandy loam, gravelly loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	15-20	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	20-30	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	30-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
GeC: Georgia---------	0-9	*Loam, Gravelly loam, silt loam, gravelly silt loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	25
	9-15	*Loam, Fine sandy loam, gravelly fine sandy loam, gravelly loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	15-20	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	20-30	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	30-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
GoA:										
Gougeville------	0-6	*Mucky loamy fine sand	*SM,	*A-2, A-4	0	0	100	95-100	50-85	15
	6-12	*Fine sand, Loamy fine sand	*SM,	*A-2-4,	0	0	100	95-100	50-80	15
	12-25	*Fine sand, Loamy fine sand	*SM,	*A-2-4,	0	0	100	95-100	50-80	15
	25-40	*Fine sand, Loamy fine sand	*SM,	*A-2-4,	0	0	100	95-100	50-80	15
	40-58	*Fine sand, Loamy fine sand, very fine sandy loam	*SM,	*A-2-4, A-4	0	0	100	95-100	55-95	15
	58-72	*Fine sand, Loamy fine sand, very fine sandy loam	*SM,	*A-2-4, A-4	0	0	100	95-100	55-95	15
HaB:										
Hailesboro------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-9	*Very fine sandy loam, Silt loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	9-17	*Very fine sandy loam, Silt loam	*CL-ML, CL	*A-4,	0	0	95-100	90-100	45-100	25
	17-23	*Very fine sandy loam, Silt loam	*CL-ML, CL	*A-4,	0	0	95-100	90-100	45-100	25
	23-30	*Silt loam, Silty clay loam	*CL, CL-ML	*A-4, A-6	0	0	95-100	90-100	45-100	45
	30-44	*Silty clay loam, Silt loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	44-54	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
	54-72	*Very fine sandy loam, Silt loam, silty clay loam	*CL-ML, CL, ML	*A-4, A-6	0	0	95-100	90-100	45-100	25
HcB:										
Howard----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Very cobbly loam, Cobbly sandy loam, cobbly loam	*SC-SM, GC-GM, GM, GW-GM	*A-4, A-2, A-1	0-10	10-35	70-100	60-90	30-90	10
	4-11	*Cobbly loam, Very cobbly loam, very cobbly sandy loam	*SM, GM, GW-GM	*A-4, A-2, A-1	0-10	10-35	50-100	40-90	20-90	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Howard----------	11-15	*Very cobbly loam, Very cobbly sandy loam, cobbly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	50-100	40-90	20-90	5
	15-22	*Very cobbly loam, Very cobbly sandy loam, cobbly loam	*GC-GM, GM, GW-GM	*A-2, A-4, A-1	0-10	20-35	50-80	40-70	20-70	5
	22-35	*Extremely cobbly loamy sand, Very cobbly loamy sand, extremely cobbly coarse sand, extremely gravelly loamy sand	*GP-GM, GM, GW, GW-GM	*A-1,	0-15	25-60	30-75	20-65	0-55	0
	35-72	*Extremely gravelly loamy sand, Extremely cobbly loamy sand, very cobbly loamy sand, extremely cobbly coarse sand	*GW-GM, GP-GM, GM, GW	*A-1,	0-15	25-60	30-75	20-65	0-55	0
HcC:										
Howard----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Very cobbly loam, Cobbly sandy loam, cobbly loam	*SC-SM, GC-GM, GM, GW-GM	*A-4, A-2, A-1	0-10	10-35	70-100	60-90	30-90	10
	4-11	*Cobbly loam, Very cobbly loam, very cobbly sandy loam	*SM, GM, GW-GM	*A-4, A-2, A-1	0-10	10-35	50-100	40-90	20-90	5
	11-15	*Very cobbly loam, Very cobbly sandy loam, cobbly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	50-100	40-90	20-90	5
	15-22	*Very cobbly loam, Very cobbly sandy loam, cobbly loam	*GC-GM, GM, GW-GM	*A-2, A-4, A-1	0-10	20-35	50-80	40-70	20-70	5
	22-35	*Extremely cobbly loamy sand, Very cobbly loamy sand, extremely cobbly coarse sand	*GP-GM, GM, GW, GW-GM	*A-1,	0-15	25-60	40-75	30-65	0-55	0
	35-72	*Extremely gravelly loamy sand, Extremely cobbly loamy sand, very cobbly loamy sand, extremely cobbly coarse sand	*GW-GM, GP-GM, GM, GW	*A-1,	0-15	25-60	30-75	20-65	0-55	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
HcD:										
Howard----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Very cobbly loam, Cobbly sandy loam, cobbly loam	*SC-SM, GC-GM, GM, GW-GM	*A-4, A-2, A-1	0-10	10-35	70-100	60-90	30-90	10
	4-11	*Cobbly loam, Very cobbly loam, very cobbly sandy loam	*SM, GM, GW-GM	*A-4, A-2, A-1	0-10	10-35	50-100	40-90	20-90	5
	11-15	*Very cobbly loam, Very cobbly sandy loam, cobbly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	50-100	40-90	20-90	5
	15-22	*Very cobbly loam, Very cobbly sandy loam, cobbly loam	*GC-GM, GM, GW-GM	*A-2, A-4, A-1	0-10	20-35	50-80	40-70	20-70	5
	22-35	*Extremely cobbly loamy sand, Very cobbly loamy sand, extremely cobbly coarse sand	*GP-GM, GM, GW, GW-GM	*A-1,	0-15	25-60	40-75	30-65	0-55	0
	35-72	*Extremely gravelly loamy sand, Extremely cobbly loamy sand, very cobbly loamy sand, extremely cobbly coarse sand	*GW-GM, GP-GM, GM, GW	*A-1,	0-15	25-60	30-75	20-65	0-55	0
HdB:										
Hartland--------	0-12	*Very fine sandy loam, Silt loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	12-19	*Very fine sandy loam, Silt loam	*ML, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	19-30	*Very fine sandy loam, Silt loam	*ML, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	30-45	*Silt loam, Very fine sandy loam	*ML, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	45-60	*Very fine sandy loam, Silt loam	*ML, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	60-72	*Fine sandy loam, Very fine sandy loam, silt loam	*SM, ML, CL-ML, SC-SM	*A-4,	0	0	95-100	90-100	45-100	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200
	In				Pct	Pct				
HgB:										
Howard----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Very gravelly loam, Very gravelly sandy loam, gravelly loam	*GC-GM, SC-SM, GM, GW-GM	*A-2, A-4, A-1	0	0-10	60-90	50-80	25-75	10
	4-11	*Gravelly loam, Very gravelly loam, very gravelly sandy loam	*GM, SM, GW-GM	*A-2, A-4, A-1	0	0-15	40-85	30-75	15-75	5
	11-15	*Very gravelly loam, Very gravelly sandy loam, gravelly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0	0-15	40-85	30-75	15-75	5
	15-22	*Very gravelly loam, Very gravelly sandy loam, gravelly loam	*GC-GM, GM, GW-GM	*A-2, A-1, A-4	0	0-15	35-65	25-55	15-55	5
	22-35	*Extremely gravelly loamy sand, Very gravelly loamy sand, extremely gravelly coarse sand, very cobbly loamy sand	*GW-GM, GP-GM, GM, GW	*A-1,	0	0-25	30-60	20-50	0-45	0
	35-72	*Extremely gravelly loamy sand, Very gravelly loamy sand, extremely gravelly coarse sand, very cobbly loamy sand	*GW-GM, GP-GM, GM, GW	*A-1,	0	0-25	30-60	20-50	0-45	0
HlB:										
Howard----------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-6	*Very cobbly fine sandy loam, Very cobbly loam, very cobbly sandy loam, cobbly loam	*SC-SM, GC-GM, GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	70-100	60-90	30-90	10
	6-10	*Very gravelly loam, Very cobbly loam, very cobbly sandy loam, cobbly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	50-100	40-90	20-90	5
	10-13	*Very gravelly loam, Very cobbly loam, very cobbly sandy loam, cobbly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	50-100	40-90	20-90	5
	13-20	*Very gravelly loam, Very cobbly loam, very cobbly sandy loam, cobbly loam	*GC-GM, GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	50-80	40-70	20-70	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
Howard----------	20-29	*Very cobbly loam, Very cobbly sandy loam, cobbly loam	*GC-GM, GM, GW-GM	*A-2, A-4, A-1	0-10	20-35	50-80	40-70	20-70	5
	29-33	*Very cobbly loam, Very cobbly sandy loam, cobbly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0-10	20-35	50-80	40-70	20-70	5
	33-54	*Extremely gravelly loamy sand, Extremely cobbly loamy sand, very cobbly loamy sand, extremely cobbly coarse sand	*GW-GM, GM, GW, GP-GM	*A-1,	0-15	25-60	30-75	20-65	0-55	0
	54-72	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam, sandy loam, gravelly sandy loam	*SM, GM, SC-SM, GC-GM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
HlC:										
Howard----------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-6	*Very cobbly fine sandy loam, Very cobbly loam, very cobbly sandy loam, cobbly loam	*SC-SM, GC-GM, GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	70-100	60-90	30-90	10
	6-10	*Very gravelly loam, Very cobbly loam, very cobbly sandy loam, cobbly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	50-100	40-90	20-90	5
	10-13	*Very gravelly loam, Very cobbly loam, very cobbly sandy loam, cobbly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	50-100	40-90	20-90	5
	13-20	*Very gravelly loam, Very cobbly loam, very cobbly sandy loam, cobbly loam	*GC-GM, GM, GW-GM	*A-2, A-4, A-1	0-10	10-35	50-80	40-70	20-70	5
	20-29	*Very cobbly loam, Very cobbly sandy loam, cobbly loam	*GC-GM, GM, GW-GM	*A-2, A-4, A-1	0-10	20-35	50-80	40-70	20-70	5
	29-33	*Very cobbly loam, Very cobbly sandy loam, cobbly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0-10	20-35	50-80	40-70	20-70	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 20
	In				Pct	Pct				
Howard----------	33-54	*Extremely gravelly loamy sand, Extremely cobbly loamy sand, very cobbly loamy sand, extremely cobbly coarse sand	*GW-GM, GM, GW, GP-GM	*A-1,	0-15	25-60	30-75	20-65	0-55	0
	54-72	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam, sandy loam, gravelly sandy loam	*SM, GM, SC-SM, GC-GM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
HmB: Howard----------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-6	*Very gravelly fine sandy loam, Very gravelly loam, very gravelly sandy loam, gravelly loam	*SC-SM, GC-GM, GM, GW-GM	*A-1, A-4, A-2	0	0-10	60-90	50-80	25-75	10
	6-10	*Very gravelly loam, Very gravelly sandy loam, gravelly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0	0-15	40-85	30-75	15-75	5
	10-13	*Very gravelly loam, Very gravelly sandy loam, gravelly loam	*GM, GC-GM, GW-GM	*A-2, A-4, A-1	0	0-15	40-85	30-75	15-75	5
	13-20	*Very gravelly loam, Very gravelly sandy loam, gravelly loam	*GC-GM, GM, GW-GM	*A-2, A-4, A-1	0	0-15	35-65	25-55	15-55	5
	20-29	*Very gravelly loam, Very gravelly sandy loam, gravelly loam	*GC-GM, GM, GW-GM	*A-2, A-4, A-1	0	0-15	35-65	25-55	15-55	5
	29-33	*Very gravelly loam, Very gravelly sandy loam, gravelly loam	*GM, GC-GM, GW-GM	*A-1, A-4, A-2	0	0-15	35-65	25-55	15-55	5
	33-54	*Extremely gravelly loamy sand, Very gravelly loamy sand, extremely gravelly coarse sand, very cobbly loamy sand	*GW-GM, GP-GM, GW, GM	*A-1,	0	0-25	30-60	20-50	0-45	0
	54-72	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam, sandy loam, gravelly sandy loam	*SM, GM, SC-SM, GC-GM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
HnC:										
Hermon, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-5	*Gravelly loamy sand, Gravelly sandy loam, very gravelly loamy sand	*SM, GM	*A-2, A-1, A-4	0-10	5-20	45-90	35-80	5-70	5
	5-10	*Gravelly loamy sand, Gravelly sandy loam, very gravelly loamy sand	*SM, GM	*A-1, A-2, A-4	0-10	5-20	45-90	35-80	5-70	5
	10-20	*Very gravelly loamy sand, Gravelly loamy sand, gravelly sandy loam	*SM, GM	*A-1, A-2, A-4	0-15	8-30	30-85	20-75	0-70	0
	20-29	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GP, GM, GP-GM, SM, SP-SM	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
	29-38	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GM, GP-GM, SM, SP-SM, GP	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
	38-72	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GM, GP-GM, SM, SP-SM, GP	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
HnD:										
Hermon, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-5	*Gravelly loamy sand, Gravelly sandy loam, very gravelly loamy sand	*SM, GM	*A-2, A-1, A-4	0-10	5-20	45-90	35-80	5-70	5
	5-10	*Gravelly loamy sand, Gravelly sandy loam, very gravelly loamy sand	*SM, GM	*A-1, A-2, A-4	0-10	5-20	45-90	35-80	5-70	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Hermon, very bouldery-------	10-20	*Very gravelly loamy sand, Gravelly loamy sand, gravelly sandy loam	*SM, GM	*A-1, A-2, A-4	0-15	8-30	30-85	20-75	0-70	0
	20-29	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GP, GM, GP-GM, SM, SP-SM	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
	29-38	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GM, GP-GM, SM, SP-SM, GP	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
	38-72	*Very gravelly sand, Very gravelly coarse sand, extremely gravelly sand, gravelly loamy sand	*SP, GM, GP-GM, SM, SP-SM, GP	*A-1, A-2, A-3	0-15	8-30	30-85	20-75	0-70	0
HrF: Hogback, very rocky, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	30-90	5
	4-6	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	6-14	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	14-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Knob Lock, very rocky, very bouldery-------	0-3	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-7	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	7-9	*Very fine sandy loam, Gravelly loamy sand, loamy sand, gravelly sandy loam, sandy loam, gravelly sand, fine sandy loam, gravelly fine sandy loam, gravelly coarse sand, very gravelly coarse sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	40-100	35-100	0-100	0
	9-72	*Unweathered bedrock			0	0	---	---	---	-
HsD:										
Hollis, very stony----------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-6	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	6-13	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	13-72	*Unweathered bedrock			0	0	---	---	---	-
Rock outcrop, very stony-----	0-72	*Unweathered bedrock			0	0	---	---	---	-
HsF:										
Hollis, very stony----------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-6	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
HsF:									
Hollis, very stony----------	6-13	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90
	13-72	*Unweathered bedrock			0	0	---	---	---
Rock outcrop, very stony-----	0-72	*Unweathered bedrock			0	0	---	---	---
KaB:									
Kalurah---------	0-9	*Silt loam, Loam, gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90
	9-13	*Gravelly loam, Loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90
	13-22	*Gravelly loam, Loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90
	22-32	*Gravelly fine sandy loam, Fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	30-80
	32-47	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80
	47-72	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
KaC:										
Kalurah---------	0-9	*Silt loam, Loam, gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	9-13	*Gravelly loam, Loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	13-22	*Gravelly loam, Loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	22-32	*Gravelly fine sandy loam, Fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	30-80	10
	32-47	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	47-72	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
KgB:										
Kalurah, very stony----------	0-9	*Silt loam, Loam, gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	9-13	*Gravelly loam, Loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	13-22	*Gravelly loam, Loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
KgB: Kalurah, very stony----------	22-32	*Gravelly fine sandy loam, Fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	30-80	10
	32-47	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	47-72	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
KgC: Kalurah, very stony----------	0-9	*Silt loam, Loam, gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	9-13	*Gravelly loam, Loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	13-22	*Gravelly loam, Loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	22-32	*Gravelly fine sandy loam, Fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	30-80	10
	32-47	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	47-72	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage passing sieve number-- 4	10	40	2
	In				Pct	Pct				
KyA:										
Kingsbury-------	0-9	*Silty clay loam, Silty clay, clay, clay loam	*ML, CL	*A-7,	0	0	100	97-100	50-100	50
	9-14	*Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	14-21	*Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	21-34	*Silty clay, Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	34-65	*Clay, Silty clay	*CL, CH, MH	*A-7,	0	0	100	97-100	50-100	50
	65-93	*Silty clay, Clay	*CL, CH, MH	*A-7,	0	0	100	97-100	50-100	50
KyB:										
Kingsbury-------	0-9	*Silty clay loam, Silty clay, clay, clay loam	*ML, CL	*A-7,	0	0	100	97-100	50-100	50
	9-14	*Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	14-21	*Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	21-34	*Silty clay, Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	34-65	*Clay, Silty clay	*CL, CH, MH	*A-7,	0	0	100	97-100	50-100	50
	65-93	*Silty clay, Clay	*CL, CH, MH	*A-7,	0	0	100	97-100	50-100	50
LnA:										
Livingston------	0-9	*Mucky silty clay loam, Mucky silty clay, clay	*OL, ML, CL	*A-7, A-6	0	0	100	100	50-100	50
	9-21	*Clay	*CH, MH, CL	*A-7,	0	0	100	100	50-100	50
	21-35	*Clay	*CH, MH, CL	*A-7,	0	0	100	100	50-100	50
	35-46	*Clay	*CH, MH, CL	*A-7,	0	0	100	100	50-100	50
	46-56	*Clay	*CH, CL, MH	*A-7,	0	0	100	100	50-100	50
	56-72	*Clay	*CH, CL, MH	*A-7,	0	0	100	100	50-100	50
LvA:										
Lovewell--------	0-11	*Very fine sandy loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	95-100	90-100	50
	11-20	*Very fine sandy loam, Silt loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	95-100	90-100	50
	20-30	*Very fine sandy loam, Silt loam	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	95-100	90-100	50
	30-50	*Very fine sandy loam, Silt loam, loamy very fine sand	*CL, CL-ML, ML	*A-4, A-6	0	0	95-100	95-100	90-100	45
	50-56	*Stratified fine sand	*SM, ML, SP-SM	*A-2, A-3, A-4	0	0	85-100	80-100	50-95	5
	56-75	*Stratified fine sand	*SM, ML, SP-SM	*A-2, A-3, A-4	0	0	85-100	80-100	50-95	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
LyD: Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-
Knob Lock, very rocky, very bouldery-------	0-3	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-7	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	7-9	*Very fine sandy loam, Gravelly loamy sand, loamy sand, gravelly sandy loam, sandy loam, gravelly sand, fine sandy loam, gravelly fine sandy loam, gravelly coarse sand, very gravelly coarse sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	40-100	35-100	0-100	0
	9-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
LyF:										
Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-
Knob Lock, very rocky, very bouldery-------	0-3	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-7	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	7-9	*Very fine sandy loam, Gravelly loamy sand, loamy sand, gravelly sandy loam, sandy loam, gravelly sand, fine sandy loam, gravelly fine sandy loam, gravelly coarse sand, very gravelly coarse sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	40-100	35-100	0-100	0
	9-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	
	In				Pct	Pct				
MaB:										
Malone----------	0-7	*Silt loam, Loam, gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	1
	7-12	*Silt loam, Loam, gravelly loam, fine sandy loam, gravelly fine sandy loam	*CL-ML, ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	1
	12-17	*Loam, Gravelly loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	1
	17-25	*Loam, Gravelly loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	1
	25-72	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, sandy loam, very gravelly sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	40-95	35-90	20-90	
MbB:										
Malone, very stony----------	0-7	*Silt loam, Loam, gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	1
	7-12	*Silt loam, Loam, gravelly loam, fine sandy loam, gravelly fine sandy loam	*CL-ML, ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	1
	12-17	*Loam, Gravelly loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	1
	17-25	*Loam, Gravelly loam, gravelly sandy loam, sandy loam, gravelly fine sandy loam, fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	1

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Malone, very stony	25-72	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, sandy loam, very gravelly sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	40-95	35-90	20-90	5
McA: Massena	0-9	*Gravelly silt loam, Silt loam, fine sandy loam, gravelly fine sandy loam, loam, gravelly loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	9-18	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam, sandy loam, gravelly sandy loam	*CL-ML, ML, GM, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	18-24	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam, sandy loam, gravelly sandy loam	*CL-ML, SM, GM, ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	24-72	*Gravelly sandy loam, Sandy loam, gravelly loam, loam, gravelly fine sandy loam, fine sandy loam	*SM, GM, SC-SM, GC-GM	*A-2, A-1, A-4	0-15	0-25	40-95	35-90	20-90	5
McB: Massena	0-9	*Gravelly silt loam, Silt loam, fine sandy loam, gravelly fine sandy loam, loam, gravelly loam	*ML, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	9-18	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam, sandy loam, gravelly sandy loam	*CL-ML, ML, GM, SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	18-24	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam, sandy loam, gravelly sandy loam	*CL-ML, SM, GM, ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Massena---------	24-72	*Gravelly sandy loam, Sandy loam, gravelly loam, loam, gravelly fine sandy loam, fine sandy loam	*SM, GM, SC-SM, GC-GM	*A-2, A-1, A-4	0-15	0-25	40-95	35-90	20-90	5
MdA:										
Medomak---------	0-1	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	1-5	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	5-11	*Mucky silt loam, Silt loam, very fine sandy loam	*OL, ML, SM	*A-5, A-4, A-2	0	0	100	95-100	45-100	25
	11-20	*Silt loam, Very fine sandy loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	20-29	*Very fine sandy loam, Silt loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	29-31	*Mucky silt loam, Silt loam, very fine sandy loam	*OL, ML, SM	*A-5, A-4, A-2	0	0	100	95-100	45-100	25
	31-41	*Very fine sandy loam, Silt loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	41-48	*Silt loam, Very fine sandy loam, loamy very fine sand	*ML, CL-ML, SM	*A-4, A-2	0	0	100	95-100	45-100	25
	48-72	*Loamy very fine sand, Silt loam, very fine sandy loam, loamy sand, loamy fine sand, fine sand	*ML, SM, CL-ML	*A-4, A-2	0	0	80-100	75-100	10-100	0
MhB:										
Monadnock-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Monadnock-------	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
MhC:										
Monadnock-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
MkB:										
Monadnock, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
MkC:										
Monadnock, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
Monadnock, very bouldery-------	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80
MkD:									
Monadnock, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
MkF: Monadnock, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80
MmF: Monadnock, bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Monadnock, bouldery-------	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
Adams-----------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	4-5	*Sand, Fine sand, loamy sand, loamy fine sand	*SP-SM, SW-SM, SM	*A-3, A-2, A-4	0	0	90-100	85-100	0-100	0
	5-8	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	90-100	85-100	0-100	0
	8-14	*Loamy sand, Loamy fine sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	90-100	85-100	0-100	0
	14-23	*Sand, Fine sand, coarse sand, gravelly coarse sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	75-100	70-100	0-100	0
	23-72	*Sand, Coarse sand, gravelly sand, gravelly coarse sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	30-100	25-100	0-90	0
MnC: Monadnock, rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Monadnock, rocky, very bouldery-------	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
Tunbridge, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
MnD: Monadnock, rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0
Tunbridge, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Tunbridge, rocky, very bouldery-------	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
MnF: Monadnock, rocky, very bouldery-------	0-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Fine sandy loam, Gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	3-12	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	12-19	*Fine sandy loam, Gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	30-85	10
	19-30	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, gravelly loamy sand	*SM, SC-SM	*A-4, A-2	0-10	0-10	60-100	55-95	5-85	5
	30-37	*Gravelly loamy sand, Very gravelly loamy sand, loamy sand, gravelly sand, very gravelly sand	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	0-15	35-100	25-90	0-80	0
	37-72	*Gravelly sand, Very gravelly loamy sand, loamy sand, gravelly loamy sand, very gravelly sand	*SP-SM, SM, GM, GP-GM	*A-1, A-2	0-15	0-15	35-100	25-90	0-80	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Tunbridge, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
MoA: Mooers----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Loamy fine sand, Loamy sand, sand, fine sand	*SM, SP-SM	*A-2, A-3	0	0	100	100	0-100	0
	4-16	*Loamy fine sand, Fine sand, sand, loamy sand	*SM, SP-SM	*A-2, A-3	0	0	100	100	0-100	0
	16-22	*Fine sand, Sand	*SP-SM, SM	*A-3, A-2	0	0	100	97-100	0-100	0
	22-42	*Fine sand, Loamy fine sand, sand	*SP-SM, SM	*A-3, A-2	0	0	100	97-100	0-100	0
	42-58	*Sand, Loamy fine sand, fine sand	*SP-SM, SW-SM, SM	*A-3, A-2	0	0	100	97-100	0-100	0
	58-72	*Sand, Loamy fine sand, fine sand	*SP-SM, SW-SM, SM	*A-3, A-2	0	0	100	97-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
MuC: Mundalite, very bouldery-------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sandy loam	*CL-ML, SM, ML	*A-4, A-2-4	1-7	0-15	80-100	60-98	50-90	30
	3-5	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	5-14	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	14-27	*Cobbly fine sandy loam, Fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	27-37	*Very cobbly fine sandy loam, Cobbly sandy loam, gravelly fine sandy loam	*SM, GM, GC-GM	*A-1, A-4, A-2-4	1-7	1-30	65-92	40-90	25-65	10
	37-72	*Very cobbly loamy sand, Gravelly loamy sand, cobbly sandy loam	*SM, SP-SM	*A-1, A-2	1-7	1-30	65-90	40-90	25-60	5
MuD: Mundalite, very bouldery-------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sandy loam	*CL-ML, SM, ML	*A-4, A-2-4	1-7	0-15	80-100	60-98	50-90	30
	3-5	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	5-14	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	14-27	*Cobbly fine sandy loam, Fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	27-37	*Very cobbly fine sandy loam, Cobbly sandy loam, gravelly fine sandy loam	*SM, GM, GC-GM	*A-1, A-4, A-2-4	1-7	1-30	65-92	40-90	25-65	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 2
	In				Pct	Pct				
Mundalite, very bouldery-------	37-72	*Very cobbly loamy sand, Gravelly loamy sand, cobbly sandy loam	*SM, SP-SM	*A-1, A-2	1-7	1-30	65-90	40-90	25-60	5
MwC: Mundalite, rocky, very bouldery-------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sandy loam	*CL-ML, SM, ML	*A-4, A-2-4	1-7	0-15	80-100	60-98	50-90	30
	3-5	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	5-14	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	14-27	*Cobbly fine sandy loam, Fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	27-37	*Very cobbly fine sandy loam, Cobbly sandy loam, gravelly fine sandy loam	*SM, GM, GC-GM	*A-1, A-4, A-2-4	1-7	1-30	65-92	40-90	25-65	10
	37-72	*Very cobbly loamy sand, Gravelly loamy sand, cobbly sandy loam	*SM, SP-SM	*A-1, A-2	1-7	1-30	65-90	40-90	25-60	5
Rawsonville, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Rawsonville, rocky, very bouldery-------	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80	10
	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80	10
	25-72	*Unweathered bedrock			0	0	---	---	---	-
MwD: Mundalite, rocky, very bouldery-------	0-1	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Fine sandy loam	*CL-ML, SM, ML	*A-4, A-2-4	1-7	0-15	80-100	60-98	50-90	30
	3-5	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	5-14	*Fine sandy loam, Cobbly fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	14-27	*Cobbly fine sandy loam, Fine sandy loam, gravelly sandy loam, loam	*CL-ML, SM, ML	*A-4, A-2-4	0-4	0-15	70-99	60-98	50-90	30
	27-37	*Very cobbly fine sandy loam, Cobbly sandy loam, gravelly fine sandy loam	*SM, GM, GC-GM	*A-1, A-4, A-2-4	1-7	1-30	65-92	40-90	25-65	10
	37-72	*Very cobbly loamy sand, Gravelly loamy sand, cobbly sandy loam	*SM, SP-SM	*A-1, A-2	1-7	1-30	65-90	40-90	25-60	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Rawsonville, rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80	10
	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80	10
	25-72	*Unweathered bedrock			0	0	---	---	---	-
NaA: Naumburg--------	0-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-7	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SW-SM, SP-SM	*A-2, A-3, A-4	0	0	95-100	90-100	0-100	0
	7-10	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3, A-4	0	0	95-100	90-100	0-100	0
	10-18	*Loamy fine sand, Fine sand, loamy sand, sand	*SM, SP-SM	*A-2, A-3	0	0	95-100	90-100	0-100	0
	18-31	*Fine sand, Loamy sand, loamy fine sand, sand	*SP-SM, SW-SM, SP	*A-3, A-1, A-2	0	0	95-100	90-100	0-100	0
	31-54	*Sand, Loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	95-100	90-100	0-100	0
	54-72	*Stratified sand to coarse sand, Sand, loamy sand, fine sand, loamy fine sand, coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	95-100	90-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
NeB: Nellis----------	0-9	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	9-16	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SC-SM, SM, GM, ML, CL-ML	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	16-21	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML, CL-ML	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	21-26	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML, CL-ML	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	26-37	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, SC-SM, GC-GM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	37-60	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam, sandy loam, gravelly sandy loam	*SM, GM, SC-SM, GC-GM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	60-72	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam, sandy loam, gravelly sandy loam	*SM, GM, SC-SM, GC-GM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
NeC: Nellis----------	0-9	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	9-16	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SC-SM, SM, GM, ML, CL-ML	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	16-21	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML, CL-ML	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Nellis----------	21-26	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML, CL-ML	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	26-37	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, SC-SM, GC-GM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	37-60	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam, sandy loam, gravelly sandy loam	*SM, GM, SC-SM, GC-GM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	60-72	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam, sandy loam, gravelly sandy loam	*SM, GM, SC-SM, GC-GM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
NeD:										
Nellis----------	0-9	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	9-16	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SC-SM, SM, GM, ML, CL-ML	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	16-21	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML, CL-ML	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	21-26	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, ML, CL-ML	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	26-37	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, GM, SC-SM, GC-GM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
	37-60	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam, sandy loam, gravelly sandy loam	*SM, GM, SC-SM, GC-GM	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Nellis----------	60-72	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam, sandy loam, gravelly sandy loam	*SM, GM, SC-SM, GC-GM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	25-90	10
NgA:										
Niagara---------	0-9	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	9-12	*Silt loam, Very fine sandy loam	*CL, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	12-18	*Silt loam, Very fine sandy loam	*CL, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	18-35	*Silty clay loam, Silt loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	35-48	*Silty clay loam, Silt loam, very fine sandy loam	*CL, CL-ML, ML	*A-6, A-4	0	0	95-100	90-100	45-100	25
	48-72	*Silty clay loam, Silt loam, very fine sandy loam	*CL, CL-ML, ML	*A-6, A-4	0	0	95-100	90-100	45-100	25
NgB:										
Niagara---------	0-9	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	9-12	*Silt loam, Very fine sandy loam	*CL, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	12-18	*Silt loam, Very fine sandy loam	*CL, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	18-35	*Silty clay loam, Silt loam	*CL, CL-ML	*A-6, A-4	0	0	95-100	90-100	45-100	45
	35-48	*Silty clay loam, Silt loam, very fine sandy loam	*CL, CL-ML, ML	*A-6, A-4	0	0	95-100	90-100	45-100	25
	48-72	*Silty clay loam, Silt loam, very fine sandy loam	*CL, CL-ML, ML	*A-6, A-4	0	0	95-100	90-100	45-100	25
NvB:										
Nicholville-----	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-6	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	6-7	*Silt loam, Very fine sandy loam	*ML, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Nicholville-----	7-12	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	12-20	*Silt loam, Very fine sandy loam	*ML, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	20-25	*Very fine sandy loam, Silt loam, fine sandy loam	*ML, CL-ML, SM, SC-SM	*A-4,	0	0	95-100	90-100	45-100	10
	25-38	*Silt loam, Very fine sandy loam, fine sandy loam	*ML, CL-ML, SM, SC-SM	*A-4,	0	0	95-100	90-100	45-100	10
	38-54	*Silt loam, Very fine sandy loam, fine sandy loam	*ML, CL-ML, SM, SC-SM	*A-4,	0	0	95-100	90-100	45-100	10
	54-72	*Very fine sandy loam, Silt loam, fine sandy loam	*ML, CL-ML, SM, SC-SM	*A-4,	0	0	95-100	90-100	45-100	10
OmA:										
Occum-----------	0-9	*Fine sandy loam, Sandy loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	9-21	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	21-30	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	30-36	*Stratified loamy fine sand to loamy sand to sand to fine sandy loam, Loamy fine sand, loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam	*SM, SP-SM, SP	*A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
	36-72	*Stratified sand to loamy sand to loamy fine sand to fine sandy loam, Loamy fine sand, loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam	*SP-SM, SW-SM, SP, SM	*A-3, A-2, A-1	0-3	0-15	50-100	45-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	20
	In				Pct	Pct				
OwA:										
Ondawa----------	0-9	*Sandy loam, Fine sandy loam, loam	*SM, ML	*A-2, A-4	0	0	80-100	75-100	20-100	5
	9-21	*Sandy loam, Fine sandy loam, loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	21-34	*Fine sandy loam, Sandy loam, loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	34-72	*Loamy fine sand, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam	*SM, SP-SM, SP	*A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
Pc:										
Pits, quarry----	0-72	*Unweathered bedrock			0	0	---	---	---	-
Pd:										
Pits, sand and gravel---------	0-10	*Sand, Gravelly coarse sand, sandy loam, fine sandy loam	*SP-SM, SP, SW	*A-3, A-1	0-15	0-25	40-100	35-100	0-90	0
	10-72	*Coarse sand, Sand, gravelly coarse sand, very gravelly sand, extremely gravelly coarse sand	*SW-SM, SP, SW	*A-1, A-3	0-15	0-40	30-100	20-100	0-90	0
PfB:										
Pittsfield------	0-8	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-10	0-25	75-100	70-100	35-100	10
	8-10	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	10-20	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	20-24	*Loam, Fine sandy loam, gravelly fine sandy loam, gravelly loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	24-30	*Gravelly loam, Gravelly fine sandy loam, fine sandy loam, loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Pittsfield------	30-45	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	30-80	10
	45-59	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-25	55-95	50-90	25-90	10
	59-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-10	0-25	55-95	50-90	25-90	10
PfC:										
Pittsfield------	0-8	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-10	0-25	75-100	70-100	35-100	10
	8-10	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	10-20	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	20-24	*Loam, Fine sandy loam, gravelly fine sandy loam, gravelly loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	24-30	*Gravelly loam, Gravelly fine sandy loam, fine sandy loam, loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	30-45	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	30-80	10
	45-59	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-25	55-95	50-90	25-90	10
	59-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-10	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
PfD:										
Pittsfield------	0-8	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-10	0-25	75-100	70-100	35-100	1
	8-10	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	1
	10-20	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	1
	20-24	*Loam, Fine sandy loam, gravelly fine sandy loam, gravelly loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	1
	24-30	*Gravelly loam, Gravelly fine sandy loam, fine sandy loam, loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	1
	30-45	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	30-80	1
	45-59	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-25	55-95	50-90	25-90	1
	59-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-10	0-25	55-95	50-90	25-90	1
PfE:										
Pittsfield------	0-8	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-10	0-25	75-100	70-100	35-100	1
	8-10	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	1
	10-20	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	1
	20-24	*Loam, Fine sandy loam, gravelly fine sandy loam, gravelly loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	1

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Pittsfield------	24-30	*Gravelly loam, Gravelly fine sandy loam, fine sandy loam, loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	30-45	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	30-80	10
	45-59	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-25	55-95	50-90	25-90	10
	59-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-10	0-25	55-95	50-90	25-90	10
PkA:										
Pleasant Lake---	0-4	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	4-5	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	5-9	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	9-31	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	31-44	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	44-53	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	53-66	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
PlB:										
Pittsfield, rocky, very stony----------	0-8	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-10	0-25	75-100	70-100	35-100	10
	8-10	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	10-20	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	20-24	*Loam, Fine sandy loam, gravelly fine sandy loam, gravelly loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	20
	In				Pct	Pct				
Pittsfield, rocky, very stony----------	24-30	*Gravelly loam, Gravelly fine sandy loam, fine sandy loam, loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	30-45	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	30-80	10
	45-59	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-25	55-95	50-90	25-90	10
	59-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-10	0-25	55-95	50-90	25-90	10
Chatfield, rocky, very stony----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-7	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	7-19	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-1, A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-27	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	27-32	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	32-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
PlC:										
Pittsfield, rocky, very stony----------	0-8	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-10	0-25	75-100	70-100	35-100	10
	8-10	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	10-20	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	20-24	*Loam, Fine sandy loam, gravelly fine sandy loam, gravelly loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	24-30	*Gravelly loam, Gravelly fine sandy loam, fine sandy loam, loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	30-45	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	30-80	10
	45-59	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-25	55-95	50-90	25-90	10
	59-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-10	0-25	55-95	50-90	25-90	10
Chatfield, rocky, very stony----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-7	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Chatfield, rocky, very stony----------	7-19	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-1, A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-27	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	27-32	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	32-72	*Unweathered bedrock			0	0	---	---	---	-
PlD: Pittsfield, rocky, very stony----------	0-8	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-10	0-25	75-100	70-100	35-100	10
	8-10	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	10-20	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	20-24	*Loam, Fine sandy loam, gravelly fine sandy loam, gravelly loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	24-30	*Gravelly loam, Gravelly fine sandy loam, fine sandy loam, loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	30-45	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Pittsfield, rocky, very stony----------	45-59	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-25	55-95	50-90	25-90	10
	59-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-10	0-25	55-95	50-90	25-90	10
Chatfield, rocky, very stony----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-7	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	7-19	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-1, A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	19-27	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	27-32	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	32-72	*Unweathered bedrock			0	0	---	---	---	-
PlF: Pittsfield, rocky, very stony----------	0-8	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM	*A-4, A-2	0-10	0-25	75-100	70-100	35-100	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Pittsfield, rocky, very stony----------	8-10	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	10-20	*Gravelly fine sandy loam, Fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-10	0-15	55-95	50-90	25-90	10
	20-24	*Loam, Fine sandy loam, gravelly fine sandy loam, gravelly loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	24-30	*Gravelly loam, Gravelly fine sandy loam, fine sandy loam, loam	*ML, SC-SM, SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	25-90	10
	30-45	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-15	55-95	50-90	30-80	10
	45-59	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-10	0-25	55-95	50-90	25-90	10
	59-72	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-10	0-25	55-95	50-90	25-90	10
Chatfield, rocky, very stony----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-7	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	7-19	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-1, A-2, A-4	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Chatfield, rocky, very stony----------	19-27	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, ML, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	27-32	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam, gravelly loam, loam	*SM, GM	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	32-72	*Unweathered bedrock			0	0	---	---	---	-
PoA: Podunk----------	0-7	*Very fine sandy loam, Fine sandy loam, loam, sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	7-11	*Very fine sandy loam, Sandy loam, fine sandy loam, loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	11-18	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	18-31	*Loamy fine sand, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam	*SM, SP-SM, SP	*A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
	31-34	*Very fine sandy loam, Fine sandy loam, loam, sandy loam, loamy fine sand, loamy sand, sand, gravelly loamy sand, very gravelly loamy sand	*ML, SM	*A-4, A-2	0-3	0-15	50-100	45-100	0-100	0
	34-39	*Very fine sandy loam, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, loamy fine sand	*ML, SM, SP-SM, SP	*A-4, A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Podunk----------	39-45	*Fine sandy loam, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, loamy fine sand, very fine sandy loam	*SM, SP-SM, SP	*A-4, A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
	45-53	*Sand, Loamy sand, loamy fine sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam	*SP-SM, SM, SW-SM, SP	*A-3, A-2, A-1	0-3	0-15	50-100	45-100	0-100	0
	53-72	*Sand, Loamy sand, loamy fine sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam	*SP-SM, SM, SW-SM, SP	*A-3, A-2, A-1	0-3	0-15	50-100	45-100	0-100	0
PrA:										
Pootatuck-------	0-5	*Fine sandy loam, Sandy loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	5-9	*Sandy loam, Fine sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	9-14	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	14-21	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	21-32	*Loamy fine sand, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam	*SM, SP-SM, SP	*A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
	32-47	*Loamy fine sand, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam	*SM, SP-SM, SP	*A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Pootatuck-------	47-72	*Loamy sand, Loamy fine sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam	*SM, SP-SM, SP	*A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
PtB:										
Pyrities--------	0-4	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	7-11	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	11-20	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	20-28	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	30-80	10
	28-54	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	54-72	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
PtC:										
Pyrities--------	0-4	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Pyrities--------	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	7-11	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	11-20	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	20-28	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	30-80	10
	28-54	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	54-72	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
PtD:										
Pyrities--------	0-4	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	7-11	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	11-20	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Pyrities--------	20-28	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	30-80	10
	28-54	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	54-72	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
PuC:										
Pyrities, very stony----------	0-4	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	7-11	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	11-20	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	20-28	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	30-80	10
	28-54	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	54-72	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
PuD: Pyrities, very stony----------	0-4	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	7-11	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	11-20	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	20-28	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	30-80	10
	28-54	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	54-72	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
PwC: Pyrities, very stony----------	0-4	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Pyrities, very stony----------	7-11	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	11-20	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	20-28	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	30-80	10
	28-54	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	54-72	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
Nehasne, very stony----------	0-6	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	65-95	60-90	30-90	10
	6-13	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	65-95	60-90	30-90	10
	13-20	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	65-95	60-90	30-90	10
	20-25	*Gravelly fine sandy loam, Very gravelly fine sandy loam, gravelly sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	45-75	40-70	25-65	5
	25-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
PwD:										
Pyrities, very stony----------	0-4	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	7-11	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	11-20	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	20-28	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	30-80	10
	28-54	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	54-72	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
Nehasne, very stony----------	0-6	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	65-95	60-90	30-90	10
	6-13	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	65-95	60-90	30-90	10
	13-20	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	65-95	60-90	30-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 2
	In				Pct	Pct				
Nehasne, very stony----------	20-25	*Gravelly fine sandy loam, Very gravelly fine sandy loam, gravelly sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	45-75	40-70	25-65	5
	25-72	*Unweathered bedrock			0	0	---	---	---	-
PyC: Pyrities--------	0-4	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	7-11	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	11-20	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	20-28	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	30-80	10
	28-54	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	54-72	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
Nehasne---------	0-6	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	65-95	60-90	30-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Nehasne, very stony----------	6-13	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	65-95	60-90	30-90	10
	13-20	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	65-95	60-90	30-90	10
	20-25	*Gravelly fine sandy loam, Very gravelly fine sandy loam, gravelly sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	45-75	40-70	25-65	5
PyD: Pyrities--------	0-4	*Fine sandy loam, Gravelly fine sandy loam, gravelly loam, loam	*SM, ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	7-11	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	11-20	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	55-95	50-90	25-90	10
	20-28	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, ML, SC-SM	*A-4, A-2, A-1	0-15	0-25	55-95	50-90	30-80	10
	28-54	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5
	54-72	*Sandy loam, Gravelly sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	40-95	35-90	20-80	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Nehasne---------	0-6	*Loam, Gravelly loam, gravelly fine sandy loam, fine sandy loam	*ML, SM	*A-4, A-2	0-15	0-25	65-95	60-90	30-90	10
	6-13	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam	*ML, SM, SC-SM	*A-4, A-2, A-1	0-15	0-25	65-95	60-90	30-90	10
	13-20	*Fine sandy loam, Gravelly fine sandy loam, loam, gravelly loam	*SM, SC-SM, ML	*A-2, A-4, A-1	0-15	0-25	65-95	60-90	30-90	10
	20-25	*Gravelly fine sandy loam, Very gravelly fine sandy loam, gravelly sandy loam, very gravelly sandy loam	*SM, ML, SC-SM	*A-2, A-4, A-1	0-15	0-25	45-75	40-70	25-65	5
	25-72	*Unweathered bedrock			0	0	---	---	---	-
RaC: Rawsonville, very rocky, very bouldery--	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80	10
	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Rawsonville, very rocky, very bouldery--	25-72	*Unweathered bedrock			0	0	---	---	---	-
Hogback, very rocky, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	30-90	5
	4-6	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	6-14	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	14-72	*Unweathered bedrock			0	0	---	---	---	-
RaD: Rawsonville, very rocky, very bouldery--	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Rawsonville, very rocky, very bouldery--	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80
	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80
	25-72	*Unweathered bedrock			0	0	---	---	---
Hogback, very rocky, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	30-90
	4-6	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80
	6-14	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80
	14-72	*Unweathered bedrock			0	0	---	---	---
RaF: Rawsonville, very rocky, very bouldery--	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---
	1-2	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Rawsonville, very rocky, very bouldery--	2-3	*Loam, Fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-100	10
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	4-5	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	5-11	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	75-100	70-100	40-90	10
	11-20	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	60-95	55-90	30-80	10
	20-25	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-1-b, A-2	0-15	0-25	60-95	55-90	30-80	10
	25-72	*Unweathered bedrock			0	0	---	---	---	-
Hogback, very rocky, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Fine sandy loam, Sandy loam, gravelly fine sandy loam, gravelly sandy loam, loamy fine sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	55-95	50-90	30-90	5
	4-6	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	6-14	*Fine sandy loam, Coarse sandy loam, gravelly fine sandy loam, gravelly coarse sandy loam, sandy loam	*SM, SC-SM	*A-5, A-4, A-2	0-15	0-25	55-95	50-90	10-80	10
	14-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
RmA:										
Rippowam--------	0-2	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	2-11	*Fine sandy loam, Sandy loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	11-21	*Fine sandy loam, Sandy loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	21-29	*Fine sandy loam, Sandy loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	29-36	*Fine sandy loam, Sandy loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	36-43	*Fine sandy loam, Sandy loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	43-72	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0
RpF:										
Rock outcrop, very bouldery--	0-72	*Unweathered bedrock			0	0	---	---	---	-
Knob Lock, very rocky, very bouldery-------	0-3	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-7	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	7-9	*Very fine sandy loam, Gravelly loamy sand, loamy sand, gravelly sandy loam, sandy loam, gravelly sand, fine sandy loam, gravelly fine sandy loam, gravelly coarse sand, very gravelly coarse sand	*SM, SC-SM	*A-4, A-2	0-15	0-25	40-100	35-100	0-100	0
	9-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-
RsA: Roundabout------	0-11	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	95-100	90-100	45-100	25
	11-19	*Very fine sandy loam, Silt loam	*ML, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	19-28	*Very fine sandy loam, Silt loam	*ML, CL-ML	*A-4,	0	0	95-100	90-100	45-100	25
	28-42	*Very fine sandy loam, Silt loam, fine sandy loam	*ML, CL-ML	*A-4,	0	0	95-100	90-100	45-100	10
	42-72	*Silt loam, Very fine sandy loam, fine sandy loam	*ML, CL-ML	*A-4,	0	0	95-100	90-100	45-100	10
RuA: Rumney----------	0-7	*Loam, Fine sandy loam, sandy loam, very fine sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	7-12	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Rumney----------	12-19	*Loam, Sandy loam, fine sandy loam, very fine sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	19-30	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	30-33	*Fine sandy loam, Sandy loam, loam, very fine sandy loam, very gravelly loamy sand, loamy sand, sand, gravelly loamy sand	*SM, ML	*A-4, A-2	0-3	0-15	50-100	45-100	0-100	0
	33-48	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0
	48-54	*Silt loam, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam, loamy fine sand	*ML, SM, SP-SM, SP	*A-4, A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
	54-72	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GP-GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0
RyA:										
Rumney----------	0-7	*Loam, Fine sandy loam, sandy loam, very fine sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	7-12	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5
	12-19	*Loam, Sandy loam, fine sandy loam, very fine sandy loam	*ML, SM	*A-4, A-2	0	0	80-100	75-100	20-100	5
	19-30	*Fine sandy loam, Sandy loam, loam, very fine sandy loam	*SM, ML	*A-4, A-2	0	0	80-100	75-100	20-100	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Rumney----------	30-33	*Fine sandy loam, Sandy loam, loam, very fine sandy loam, very gravelly loamy sand, loamy sand, sand, gravelly loamy sand	*SM, ML	*A-4, A-2	0-3	0-15	50-100	45-100	0-100	0
	33-48	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0
	48-54	*Silt loam, Loamy sand, sand, gravelly loamy sand, very gravelly loamy sand, fine sandy loam, very fine sandy loam, loamy fine sand	*ML, SM, SP-SM, SP	*A-4, A-2, A-3, A-1	0-3	0-15	50-100	45-100	0-100	0
	54-72	*Very gravelly loamy sand, Loamy sand, sand, gravelly loamy sand, loamy fine sand, fine sandy loam, very fine sandy loam	*GP-GM, SM, SP-SM, SP	*A-1, A-3, A-2	0-3	0-15	50-100	45-100	0-100	0
Burnt Vly-------	0-10	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	10-15	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	15-24	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	24-34	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	34-56	*Loamy fine sand, Loamy sand, sand, gravelly loamy sand, cobbly loamy sand, gravelly sand, gravelly coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-2, A-1, A-3	0-15	0-25	55-100	50-100	0-100	0
	56-72	*Very fine sandy loam, Loamy fine sand, loamy sand, sand, gravelly loamy sand, cobbly loamy sand, gravelly sand, gravelly coarse sand	*ML, SM, SP-SM, GM, GP-GM, SP, GP	*A-4, A-2, A-3, A-1	0-15	0-25	55-100	50-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40
	In				Pct	Pct			
SeA:									
Searsport-------	0-4	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---
	4-9	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---
	9-14	*Mucky sand, Fine sand, loamy sand, loamy fine sand, mucky loamy fine sand, sand	*SP-SM, SM	*A-3, A-2, A-4	0	0	80-100	75-100	0-100
	14-22	*Sand, Loamy sand, fine sand, loamy fine sand, loamy very fine sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	80-100	75-100	0-100
	22-32	*Sand, Loamy sand, fine sand, loamy fine sand, loamy very fine sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0	80-100	75-100	0-100
	32-40	*Loamy fine sand, Loamy sand, fine sand, sand, loamy very fine sand	*SM, ML, SW-SM, SP, SP-SM, SW	*A-2, A-3, A-4, A-1	0	0	80-100	75-100	0-100
	40-48	*Loamy fine sand, Loamy sand, fine sand, sand, gravelly sand, very gravelly coarse sand	*SM, SW-SM, SP, SP-SM, SW	*A-2, A-3, A-1	0	0-1	45-100	40-100	0-100
	48-54	*Very fine sandy loam, Loamy sand, fine sand, sand, loamy fine sand, gravelly sand, very gravelly coarse sand	*ML, SW-SM, SP, SP-SM, SW	*A-4, A-3, A-1, A-2	0	0-1	45-100	40-100	0-100
	54-72	*Stratified fine sand to sand, Loamy sand, fine sand, sand, loamy fine sand, gravelly sand, very gravelly coarse sand	*SP-SM, SP, SW-SM, SW	*A-3, A-1, A-2	0	0-1	45-100	40-100	0-100
SkB:									
Skerry----------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---
	2-4	*Loam, Fine sandy loam, gravelly fine sandy loam	*OL, ML, SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-90
	4-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80
	5-9	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Skerry----------	9-15	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	15-26	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	26-38	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	38-72	*Gravelly loamy fine sand, Gravelly loamy sand, gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	1-25	50-95	45-90	5-90	5
SnB: Sunapee, very bouldery-------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Fine sandy loam, Loam, gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	25-90	10
	4-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	5-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-14	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	14-19	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	19-31	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	31-72	*Gravelly loamy sand, Loamy sand, very gravelly loamy sand, gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	1-25	35-95	30-90	5-80	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
SpB:										
Sunapee----------	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-4	*Fine sandy loam, Loam, gravelly fine sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	25-90	10
	4-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	5-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-14	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	14-19	*Fine sandy loam, Gravelly fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	19-31	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	31-72	*Gravelly loamy sand, Loamy sand, very gravelly loamy sand, gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	1-25	35-95	30-90	5-80	5
SrB:										
Skerry, very bouldery--------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Loam, Fine sandy loam, gravelly fine sandy loam	*OL, ML, SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-90	10
	4-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Skerry, very bouldery-------	9-15	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	15-26	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	26-38	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	38-72	*Gravelly loamy fine sand, Gravelly loamy sand, gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	1-25	50-95	45-90	5-90	5
SrC:										
Skerry, very bouldery-------	0-2	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-4	*Loam, Fine sandy loam, gravelly fine sandy loam	*OL, ML, SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-90	10
	4-5	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	5-9	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	9-15	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	60-95	55-90	30-80	10
	15-26	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	26-38	*Gravelly fine sandy loam, Fine sandy loam, gravelly sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	60-95	55-90	30-80	10
	38-72	*Gravelly loamy fine sand, Gravelly loamy sand, gravelly sandy loam, sandy loam	*SM, SP-SM, GM, GP-GM	*A-2, A-1	0-15	1-25	50-95	45-90	5-90	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
StA: Stafford--------	0-10	*Fine sandy loam, Loamy fine sand, loamy sand	*SM, SP-SM	*A-2, A-4, A-1	0	0	90-100	85-100	10-100	10
	10-20	*Loamy sand, Loamy fine sand, fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	10-100	0
	20-32	*Loamy sand, Loamy fine sand, fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	10-100	0
	32-72	*Sand, Fine sand	*SP-SM, SP, SM	*A-3, A-2, A-1	0	0-9	80-100	75-100	0-100	0
SuA: Sun-------------	0-3	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	3-11	*Silt loam, Gravelly silt loam, fine sandy loam, gravelly fine sandy loam, loam, gravelly loam	*ML, SM	*A-4, A-2	0-10	0-15	55-95	50-90	25-90	10
	11-15	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam, sandy loam, gravelly sandy loam	*ML, SC-SM, GM, SM, CL-ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	15-25	*Loam, Gravelly loam, fine sandy loam, gravelly fine sandy loam, sandy loam, gravelly sandy loam	*ML, SC-SM, GM, SM, CL-ML	*A-4, A-2	0-15	0-25	55-95	50-90	25-90	10
	25-40	*Gravelly fine sandy loam, Fine sandy loam, sandy loam, gravelly sandy loam, loam, gravelly loam	*SM, SC-SM, GM, ML, CL-ML	*A-2, A-4	0-15	0-25	55-95	50-90	25-90	10
	40-54	*Gravelly sandy loam, Sandy loam, gravelly fine sandy loam, fine sandy loam, gravelly loam, loam	*SM, GM, SC, GC	*A-2, A-4	0-15	0-25	40-80	35-75	20-75	5
	54-72	*Gravelly sandy loam, Sandy loam, gravelly loam, loam, gravelly fine sandy loam, fine sandy loam	*SM, GM, SC-SM, GC-GM	*A-2, A-1, A-4	0-15	0-25	40-80	35-75	20-75	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
TaA:										
Tahawus, very bouldery-------	0-2	*Peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	2-5	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	5-9	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	9-17	*Sandy loam, Gravelly sandy loam, cobbly sandy loam, fine sandy loam, gravelly fine sandy loam, loamy sand, gravelly loamy sand, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	5-90	5
	17-24	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand, gravelly coarse sand, loamy coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-1, A-2, A-3	0-15	1-25	55-95	50-90	0-90	0
	24-72	*Gravelly loamy sand, Loamy sand, cobbly loamy sand, loamy fine sand, sand, gravelly sand, gravelly coarse sand, loamy coarse sand	*SM, SP-SM, GM, GP-GM, SP, GP	*A-1, A-2, A-3	0-15	1-25	55-95	50-90	0-90	0
TeA:										
Typic Endoaquolls, very stony-----	0-10	*Loam	*ML,	*A-4,	0-1	0-5	85-96	75-95	50-90	30
	10-15	*Sandy loam, Loam, gravelly fine sandy loam	*SM, SC-SM, ML	*A-2, A-4	0-4	0-8	85-96	75-95	50-80	30
	15-24	*Sandy loam, Loam, gravelly fine sandy loam	*SM, SC-SM, ML	*A-2, A-4	0-4	0-8	85-96	75-95	50-80	30
	24-72	*Sandy loam, Loam, gravelly fine sandy loam	*SM, SC-SM, ML	*A-2, A-4	0-5	0-8	80-96	75-95	45-80	25
ToA:										
Tonawanda-------	0-9	*Silt loam, Very fine sandy loam	*ML,	*A-4,	0	0	100	97-100	45-100	25
	9-14	*Silt loam, Very fine sandy loam	*ML, CL-ML	*A-4,	0	0	100	97-100	45-100	25
	14-22	*Silt loam, Very fine sandy loam	*ML, CL-ML	*A-4,	0	0	100	97-100	45-100	25
	22-72	*Silt loam, Very fine sandy loam, fine sandy loam	*ML, CL-ML	*A-4,	0	0	100	97-100	45-100	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
TuC: Tunbridge, very rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Lyman, very rocky, very bouldery-------	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-
TuD: Tunbridge, very rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-
Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	5

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
Lyman, very rocky, very bouldery-------	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	10
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	10
	18-72	*Unweathered bedrock			0	0	---	---	---	-
TuF: Tunbridge, very rocky, very bouldery-------	0-1	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	1-3	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	-
	3-4	*Sandy loam, Fine sandy loam, loamy fine sand, gravelly sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-90	5
	4-7	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	7-13	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	13-18	*Fine sandy loam, Gravelly fine sandy loam, sandy loam, gravelly sandy loam	*SM, SC-SM	*A-4, A-2	0-15	1-25	55-95	50-90	30-80	10
	18-27	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-4	0-15	1-25	55-95	50-90	30-80	10
	27-72	*Unweathered bedrock			0	0	---	---	---	-

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	
	In				Pct	Pct				
Lyman, very rocky, very bouldery-------	0-0	*Slightly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	
	0-1	*Moderately decomposed plant material	*PT,	*A-8,	0	0	---	---	---	
	1-2	*Highly decomposed plant material	*PT,	*A-8,	0	0	---	---	---	
	2-3	*Gravelly sandy loam, Fine sandy loam, sandy loam, loamy fine sand	*SM, SC-SM	*A-2, A-4	0-25	0-15	55-95	50-90	30-90	
	3-9	*Gravelly sandy loam, Fine sandy loam, gravelly fine sandy loam, sandy loam	*SM, SC-SM	*A-2, A-4	0-5	0-15	55-95	50-90	30-80	1
	9-13	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-2, A-1-b, A-4	0-5	0-15	55-95	50-90	30-80	1
	13-18	*Gravelly sandy loam, Sandy loam, fine sandy loam, gravelly fine sandy loam	*SM, SC-SM	*A-1-b, A-2, A-4	0-5	0-15	55-95	50-90	30-80	1
	18-72	*Unweathered bedrock			0	0	---	---	---	
UlC:										
Udorthents------	0-2	*Gravelly silty clay loam, Loam, silt loam, cobbly fine sandy loam, very gravelly sandy loam	*ML, CL, SC, SM	*A-7, A-4, A-2, A-6	0-15	0-25	35-100	30-100	15-100	
	2-21	*Gravelly clay loam, Very gravelly sandy loam, gravelly loam, silty clay loam, loamy sand	*GC, CL, GM, ML, SC	*A-6, A-4, A-2, A-1	0-15	0-25	35-100	30-100	5-100	
	21-72	*Silty clay loam, Very gravelly sandy loam, gravelly loam, gravelly clay loam, loamy sand, material	*CL, GM, ML, SC	*A-6, A-4, A-2, A-1	0-15	0-25	35-100	30-100	5-100	
UmF:										
Udorthents, mine spoil----------	0-5	*Silt loam, Fine sandy loam, gravelly sandy loam, loam	*ML,	*A-4,	0	0-5	75-100	70-100	35-100	1
	5-9	*Silt loam, Fine sandy loam, gravelly sandy loam, loam	*ML, CL-ML, CL	*A-4, A-6	0	0-5	75-100	70-100	45-100	2

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
Udorthents, mine spoil----------	9-72	*Extremely gravelly loamy sand, Very gravelly sand, very gravelly coarse sand, extremely gravelly sand, very gravelly loamy sand, extremely cobbly loamy coarse sand, very stony loamy coarse sand	*GW, GM, GP-GM, SM, SP-SM, GP, SP	*A-1, A-2, A-3	0-30	0-50	15-85	5-75	0-70	0
VeB:										
Vergennes-------	0-8	*Silty clay loam, Clay, silty clay, clay loam	*ML, CL	*A-7,	0	0	100	97-100	50-100	50
	8-10	*Clay, Silty clay, silty clay loam	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	10-22	*Clay	*MH, CH, CL	*A-7,	0	0	100	97-100	50-100	50
	22-29	*Silty clay, Clay	*MH, CH, CL	*A-7,	0	0	100	97-100	50-100	50
	29-37	*Silty clay, Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	37-45	*Silty clay, Clay	*CL, CH, MH	*A-7,	0	0	100	97-100	50-100	50
	45-72	*Silty clay, Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
VeC:										
Vergennes-------	0-8	*Silty clay loam, Clay, silty clay, clay loam	*ML, CL	*A-7,	0	0	100	97-100	50-100	50
	8-10	*Clay, Silty clay, silty clay loam	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	10-22	*Clay	*MH, CH, CL	*A-7,	0	0	100	97-100	50-100	50
	22-29	*Silty clay, Clay	*MH, CH, CL	*A-7,	0	0	100	97-100	50-100	50
	29-37	*Silty clay, Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	37-45	*Silty clay, Clay	*CL, CH, MH	*A-7,	0	0	100	97-100	50-100	50
	45-72	*Silty clay, Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
VeD:										
Vergennes-------	0-8	*Silty clay loam, Clay, silty clay, clay loam	*ML, CL	*A-7,	0	0	100	97-100	50-100	50
	8-10	*Clay, Silty clay, silty clay loam	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	10-22	*Clay	*MH, CH, CL	*A-7,	0	0	100	97-100	50-100	50
	22-29	*Silty clay, Clay	*MH, CH, CL	*A-7,	0	0	100	97-100	50-100	50
	29-37	*Silty clay, Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	37-45	*Silty clay, Clay	*CL, CH, MH	*A-7,	0	0	100	97-100	50-100	50
	45-72	*Silty clay, Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
VeE:										
Vergennes-------	0-8	*Silty clay loam, Clay, silty clay, clay loam	*ML, CL	*A-7,	0	0	100	97-100	50-100	50
	8-10	*Clay, Silty clay, silty clay loam	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	10-22	*Clay	*MH, CH, CL	*A-7,	0	0	100	97-100	50-100	50
	22-29	*Silty clay, Clay	*MH, CH, CL	*A-7,	0	0	100	97-100	50-100	50
	29-37	*Silty clay, Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
	37-45	*Silty clay, Clay	*CL, CH, MH	*A-7,	0	0	100	97-100	50-100	50
	45-72	*Silty clay, Clay	*CH, MH, CL	*A-7,	0	0	100	97-100	50-100	50
W:										
Water-----------	---	---	---	---	---	---	---	---	---	-
WeA:										
Wegatchie-------	0-8	*Silt loam	*ML, MH	*A-5, A-4, A-7	0	0	96-100	96-100	50-100	50
	8-13	*Clay loam, Silty clay loam, silt loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	96-100	96-100	50-100	30
	13-19	*Silty clay loam, Clay loam, silt loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	96-100	96-100	50-100	30
	19-40	*Silt loam, Clay loam, silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	96-100	96-100	50-100	30
	40-72	*Silt loam, Silty clay loam, very fine sandy loam	*CL, CL-ML	*A-4, A-6	0	0	85-100	85-100	50-100	30
WlA:										
Whallonsburg----	0-2	*Mucky peat	*PT,	*A-8,	0-15	0-30	---	---	---	-
	2-12	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	12-20	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	20-23	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	23-30	*Silty clay loam, Silty clay, clay	*MH, CH, CL	*A-7,	0	0	100	95-100	55-100	55
	30-72	*Silty clay loam, Silty clay, clay	*MH, CH, CL	*A-7,	0	0	100	95-100	55-100	55
WnA:										
Windsor---------	0-10	*Loamy sand, Loamy fine sand	*SM, SP-SM	*A-2, A-4, A-1	0	0	90-100	85-100	10-100	10
	10-14	*Loamy sand, Loamy fine sand	*SM, SP-SM	*A-2, A-3, A-1	0	0	90-100	85-100	10-100	10
	14-19	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	19-24	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	24-72	*Sand, Fine sand, coarse sand	*SP-SM, SP, SM	*A-3, A-2, A-1	0	0-9	80-100	75-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	2
	In				Pct	Pct				
WnB:										
Windsor----------	0-10	*Loamy sand, Loamy fine sand	*SM, SP-SM	*A-2, A-4, A-1	0	0	90-100	85-100	10-100	10
	10-14	*Loamy sand, Loamy fine sand	*SM, SP-SM	*A-2, A-3, A-1	0	0	90-100	85-100	10-100	10
	14-19	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	19-24	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	24-72	*Sand, Fine sand, coarse sand	*SP-SM, SP, SM	*A-3, A-2, A-1	0	0-9	80-100	75-100	0-100	0
WnC:										
Windsor----------	0-10	*Loamy sand, Loamy fine sand	*SM, SP-SM	*A-2, A-4, A-1	0	0	90-100	85-100	10-100	10
	10-14	*Loamy sand, Loamy fine sand	*SM, SP-SM	*A-2, A-3, A-1	0	0	90-100	85-100	10-100	10
	14-19	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	19-24	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	24-72	*Sand, Fine sand, coarse sand	*SP-SM, SP, SM	*A-3, A-2, A-1	0	0-9	80-100	75-100	0-100	0
WnD:										
Windsor----------	0-10	*Loamy sand, Loamy fine sand	*SM, SP-SM	*A-2, A-4, A-1	0	0	90-100	85-100	10-100	10
	10-14	*Loamy sand, Loamy fine sand	*SM, SP-SM	*A-2, A-3, A-1	0	0	90-100	85-100	10-100	10
	14-19	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	19-24	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	24-72	*Sand, Fine sand, coarse sand	*SP-SM, SP, SM	*A-3, A-2, A-1	0	0-9	80-100	75-100	0-100	0
WnE:										
Windsor----------	0-10	*Loamy sand, Loamy fine sand	*SM, SP-SM	*A-2, A-4, A-1	0	0	90-100	85-100	10-100	10
	10-14	*Loamy sand, Loamy fine sand	*SM, SP-SM	*A-2, A-3, A-1	0	0	90-100	85-100	10-100	10
	14-19	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	19-24	*Sand, Loamy sand, fine sand, loamy fine sand	*SP-SM, SM, SP	*A-3, A-2, A-1	0	0	90-100	85-100	0-100	0
	24-72	*Sand, Fine sand, coarse sand	*SP-SM, SP, SM	*A-3, A-2, A-1	0	0-9	80-100	75-100	0-100	0

Table 19.—Engineering Index Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	2
	In				Pct	Pct				
WoA:										
Wonsqueak-------	0-12	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	12-25	*Muck	*PT,	*A-8,	0-15	0-30	---	---	---	-
	25-29	*Sandy loam, Loam, fine sandy loam, silt loam, gravelly loam, gravelly sandy loam	*SM, GM, SC-SM, GC-GM	*A-2, A-1, A-4	0-5	0-10	75-100	70-100	35-100	10
	29-72	*Silt loam, Loam, fine sandy loam, sandy loam, gravelly loam, gravelly sandy loam	*ML, SM, GM, SC-SM, GC-GM	*A-4, A-2, A-1	0-5	0-10	75-100	70-100	35-100	10

Table 20.—Physical Soil Properties

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind er
apply only to the surface layer. Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
10A:											
Pleasant Lake-------	0-4	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	4-5	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	5-9	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	9-31	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	31-44	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	44-53	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	53-66	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
Burnt Vly-----------	0-10	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	10-15	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	15-24	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	24-34	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	34-56	70-100	0-29	0-15	1.35-1.85	0.6-100	0.02-0.10	0.0-2.9	0.1-2.0	.20	.20
	56-72	44-100	0-49	0-20	1.35-1.85	0.6-100	0.02-0.20	0.0-2.9	0.1-2.0	.37	.37
13A:											
Burnt Vly-----------	0-10	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	10-15	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	15-24	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	24-34	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	34-56	70-100	0-29	0-15	1.35-1.85	0.6-100	0.02-0.10	0.0-2.9	0.1-2.0	.20	.20
	56-72	44-100	0-49	0-20	1.35-1.85	0.6-100	0.02-0.20	0.0-2.9	0.1-2.0	.37	.37
Rumney--------------	0-7	33-85	0-50	0-17	0.75-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-20	.28	.28
	7-12	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.24	.24
	12-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.28	.28
	19-30	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.24	.24
	30-33	33-100	0-50	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.24	.24
	33-48	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15
	48-54	3-100	0-80	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.49	.49
	54-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Pleasant Lake-------	0-4	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	4-5	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	5-9	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	9-31	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	31-44	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	44-53	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	53-66	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
29C:											
Burnt Vly-----------	0-10	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	10-15	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	15-24	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	24-34	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	34-56	70-100	0-29	0-15	1.35-1.85	0.6-100	0.02-0.10	0.0-2.9	0.1-2.0	.20	.20
	56-72	44-100	0-49	0-20	1.35-1.85	0.6-100	0.02-0.20	0.0-2.9	0.1-2.0	.37	.37
Colton--------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
Rumney--------------	0-7	33-85	0-50	0-17	0.75-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-20	.28	.28
	7-12	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.24	.24
	12-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.28	.28
	19-30	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.24	.24
	30-33	33-100	0-50	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.24	.24
	33-48	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15
	48-54	3-100	0-80	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.49	.49
	54-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac[tors] Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
113A:											
Ondawa--------------	0-9	33-85	0-50	0-17	0.95-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-10	.24	.24
	9-21	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.24	.24
	21-34	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.24	.24
	34-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.20	.20
Rumney--------------	0-7	33-85	0-50	0-17	0.75-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-20	.28	.28
	7-12	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.24	.24
	12-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.28	.28
	19-30	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.24	.24
	30-33	33-100	0-50	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.24	.24
	33-48	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15
	48-54	3-100	0-80	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.49	.49
	54-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15
123A:											
Lovewell------------	0-11	44-85	0-49	7-20	0.95-1.35	0.6-2	0.12-0.24	0.0-2.9	2.0-8.0	.37	.37
	11-20	0-85	0-80	7-20	0.95-1.40	0.6-2	0.12-0.21	0.0-2.9	0.5-2.0	.49	.49
	20-30	0-85	0-80	7-20	0.95-1.40	0.6-2	0.12-0.21	0.0-2.9	0.5-2.0	.49	.49
	30-50	2-91	0-80	5-18	1.10-1.50	0.6-2	0.10-0.21	0.0-2.9	0.0-1.0	.49	.49
	50-56	86-100	0-14	0-18	1.30-1.50	6-20	0.04-0.08	0.0-2.9	0.0-0.5	.10	.10
	56-75	86-100	0-14	0-18	1.30-1.50	6-20	0.04-0.08	0.0-2.9	0.0-0.5	.10	.10
Cornish-------------	0-12	3-85	0-80	0-17	0.70-1.45	0.6-6	0.12-0.27	0.0-2.9	1.0-20	.43	.43
	12-21	3-85	0-80	0-17	1.20-1.55	0.6-6	0.12-0.25	0.0-2.9	0.1-5.0	.43	.43
	21-35	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	35-42	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	42-48	3-100	0-80	0-17	1.20-1.65	0.6-20	0.04-0.22	0.0-2.9	0.0-3.0	.15	.15
	48-53	3-100	0-80	0-17	1.20-1.65	0.6-20	0.04-0.22	0.0-2.9	0.0-3.0	.43	.43
	53-72	3-100	0-80	0-17	1.20-1.65	0.6-20	0.04-0.22	0.0-2.9	0.0-3.0	.20	.20

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
350B:											
Duxbury, very stony-	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	44-85	0-49	0-17	0.40-1.35	0.6-6	0.10-0.40	0.0-2.9	4.0-30	.32	.32
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.32	.32
	5-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.10-0.40	0.0-2.9	4.0-10	.32	.32
	13-21	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.24	.32
	21-31	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.08	0.0-2.9	0.1-1.0	.02	.05
	31-36	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.08	0.0-2.9	0.1-1.0	.02	.05
	36-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.08	0.0-2.9	0.1-1.0	.02	.05
363A:											
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05
363B:											
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion fac Kw	Erosion fac Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
363D:											
Adams	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05
363F:											
Adams	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05
365A:											
Naumburg	0-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-7	70-100	0-29	0-15	1.10-1.75	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.20	.20
	7-10	70-100	0-29	0-15	0.75-1.40	6-20	0.04-0.30	0.0-2.9	4.0-10	.20	.20
	10-18	70-100	0-29	0-15	0.80-1.65	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.20	.20
	18-31	70-100	0-29	0-15	1.35-1.75	6-20	0.03-0.10	0.0-2.9	0.1-3.0	.10	.10
	31-54	70-100	0-29	0-15	1.40-1.75	6-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	54-72	70-100	0-29	0-15	1.40-1.75	6-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Croghan-------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	70-100	0-29	0-15	0.60-1.40	2-20	0.04-0.30	0.0-2.9	4.0-30	.10	.10
	3-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.10	.10
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.10	.10
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.10	.10
	14-23	70-100	0-29	0-15	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-3.0	.10	.10
	23-29	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	29-42	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	42-45	44-100	0-49	0-15	1.40-1.75	2-100	0.03-0.15	0.0-2.9	0.1-1.0	.15	.15
	45-72	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
367A:											
Searsport-----------	0-4	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	4-9	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	9-14	70-100	0-29	0-15	0.60-1.40	2-20	0.04-0.30	0.0-2.9	4.0-30	.10	.10
	14-22	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	22-32	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	32-40	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.24	.24
	40-48	70-100	0-29	0-15	1.40-1.75	2-100	0.02-0.10	0.0-2.9	0.1-1.0	.24	.24
	48-54	44-100	0-49	0-17	1.40-1.75	0.6-100	0.02-0.16	0.0-2.9	0.1-1.0	.37	.37
	54-72	70-100	0-29	0-15	1.40-1.75	2-100	0.02-0.10	0.0-2.9	0.1-1.0	.10	.10
Haplosaprists-------	0-10	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	10-20	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	20-72	44-100	0-49	0-17	1.00-1.75	0.6-100	0.02-0.16	0.0-2.9	0.1-8.0	.20	.20

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Naumburg------------	0-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-7	70-100	0-29	0-15	1.10-1.75	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.20	.20
	7-10	70-100	0-29	0-15	0.75-1.40	6-20	0.04-0.30	0.0-2.9	4.0-10	.20	.20
	10-18	70-100	0-29	0-15	0.80-1.65	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.20	.20
	18-31	70-100	0-29	0-15	1.35-1.75	6-20	0.03-0.10	0.0-2.9	0.1-3.0	.10	.10
	31-54	70-100	0-29	0-15	1.40-1.75	6-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	54-72	70-100	0-29	0-15	1.40-1.75	6-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
375A:											
Colton--------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
375C:											
Colton---------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
Adams----------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05
375D:											
Colton---------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa[ctors] Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05
375F:											
Colton--------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
649C:											
Monadnock, rocky, very bouldery------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
Tunbridge, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Tahawus, very bouldery-----------	0-2	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	2-5	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	5-9	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	9-17	44-91	0-49	0-17	1.20-1.75	0.6-6	0.02-0.17	0.0-2.9	0.1-5.0	.15	.20
	17-24	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.05	.15
	24-72	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.15
650C:											
Monadnock, bouldery-	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05
Colton--------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
650D:											
Monadnock, bouldery-	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Colton----------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
651D:											
Monadnock, rocky, very bouldery------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
Tunbridge, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
653C:											
Monadnock, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
653D:											
Monadnock, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
655B:											
Sunapee, very bouldery-----------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-4	33-85	0-50	0-17	0.40-1.35	0.6-6	0.07-0.38	0.0-2.9	4.0-30	.20	.24
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.20	.24
	5-7	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.20	.24
	7-14	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	14-19	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.17	.24
	19-31	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	31-72	44-91	0-49	0-17	1.30-1.85	2-20	0.02-0.13	0.0-2.9	0.1-3.0	.10	.15
Monadnock, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
657C:											
Monadnock, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Tahawus, very bouldery-----------	0-2	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	2-5	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	5-9	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	9-17	44-91	0-49	0-17	1.20-1.75	0.6-6	0.02-0.17	0.0-2.9	0.1-5.0	.15	.20
	17-24	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.05	.15
	24-72	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.15
657D:											
Monadnock, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
Tahawus, very bouldery-----------	0-2	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	2-5	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	5-9	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	9-17	44-91	0-49	0-17	1.20-1.75	0.6-6	0.02-0.17	0.0-2.9	0.1-5.0	.15	.20
	17-24	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.05	.15
	24-72	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.15
661C:											
Hermon, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-5	44-91	0-49	0-17	0.75-1.50	2-20	0.04-0.21	0.0-2.9	0.1-4.0	.10	.15
	5-10	44-91	0-49	0-17	0.65-1.40	2-20	0.05-0.34	0.0-2.9	4.0-10	.10	.15
	10-20	44-91	0-49	0-17	0.75-1.55	2-20	0.03-0.26	0.0-2.9	1.0-8.0	.05	.15
	20-29	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
	29-38	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
	38-72	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
661D:											
Hermon, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-5	44-91	0-49	0-17	0.75-1.50	2-20	0.04-0.21	0.0-2.9	0.1-4.0	.10	.15
	5-10	44-91	0-49	0-17	0.65-1.40	2-20	0.05-0.34	0.0-2.9	4.0-10	.10	.15
	10-20	44-91	0-49	0-17	0.75-1.55	2-20	0.03-0.26	0.0-2.9	1.0-8.0	.05	.15
	20-29	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
	29-38	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
	38-72	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
661F:											
Hermon, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-5	44-91	0-49	0-17	0.75-1.50	2-20	0.04-0.21	0.0-2.9	0.1-4.0	.10	.15
	5-10	44-91	0-49	0-17	0.65-1.40	2-20	0.05-0.34	0.0-2.9	4.0-10	.10	.15
	10-20	44-91	0-49	0-17	0.75-1.55	2-20	0.03-0.26	0.0-2.9	1.0-8.0	.05	.15
	20-29	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
	29-38	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
	38-72	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
705B:											
Adirondack, very bouldery-----------	0-2	30-80	0-40	0-17	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	---
	2-4	30-80	0-40	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---	---
	4-6	44-85	0-49	0-17	1.00-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-10	.20	.24
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	18-26	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.28	.37
	26-34	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
	34-43	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
	43-72	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
Tahawus, very bouldery-----------	0-2	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	2-5	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	5-9	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	9-17	44-91	0-49	0-17	1.20-1.75	0.6-6	0.02-0.17	0.0-2.9	0.1-5.0	.15	.20
	17-24	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.05	.15
	24-72	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
721C:											
Becket, rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
Tunbridge, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Skerry, rocky, very bouldery-----------	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-4	33-85	0-50	0-17	0.40-1.35	0.6-6	0.10-0.38	0.0-2.9	4.0-30	.17	.24
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.24	0.0-2.9	0.5-4.0	.17	.24
	5-9	44-85	0-49	0-17	0.65-1.40	0.6-6	0.10-0.38	0.0-2.9	4.0-10	.17	.24
	9-15	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.29	0.0-2.9	2.0-8.0	.15	.20
	15-26	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	26-38	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	38-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
721D:											
Becket, rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Tunbridge, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
721F:											
Becket, rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
Tunbridge, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
723C:											
Becket, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
723D:											
Becket, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
723F:											
Becket, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
725B:											
Skerry, very bouldery-----------	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-4	33-85	0-50	0-17	0.40-1.35	0.6-6	0.10-0.38	0.0-2.9	4.0-30	.17	.24
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.24	0.0-2.9	0.5-4.0	.17	.24
	5-9	44-85	0-49	0-17	0.65-1.40	0.6-6	0.10-0.38	0.0-2.9	4.0-10	.17	.24
	9-15	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.29	0.0-2.9	2.0-8.0	.15	.20
	15-26	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	26-38	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	38-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
Becket, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
727B:											
Skerry, very bouldery----------	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-4	33-85	0-50	0-17	0.40-1.35	0.6-6	0.10-0.38	0.0-2.9	4.0-30	.17	.24
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.24	0.0-2.9	0.5-4.0	.17	.24
	5-9	44-85	0-49	0-17	0.65-1.40	0.6-6	0.10-0.38	0.0-2.9	4.0-10	.17	.24
	9-15	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.29	0.0-2.9	2.0-8.0	.15	.20
	15-26	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	26-38	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	38-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
Adirondack, very bouldery----------	0-2	30-80	0-40	0-17	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	---
	2-4	30-80	0-40	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---	---
	4-6	44-85	0-49	0-17	1.00-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-10	.20	.24
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	18-26	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.28	.37
	26-34	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
	34-43	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
	43-72	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
831C:											
Tunbridge, very rocky, very bouldery----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa[ctors]	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
831D:											
Tunbridge, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
831F:											
Tunbridge, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
833C:											
Tunbridge, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Adirondack, very rocky, very bouldery-----------	0-2	30-80	0-40	0-17	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	---
	2-4	30-80	0-40	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---	---
	4-6	44-85	0-49	0-17	1.00-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-10	.20	.24
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	18-26	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.28	.37
	26-34	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
	34-43	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
	43-72	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
851D:											
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Knob Lock, very rocky, very bouldery-----------	0-3	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	3-7	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	7-9	44-100	0-49	0-20	0.60-1.50	0.6-100	0.10-0.26	0.0-2.9	2.0-21	.17	.24
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
851F:											
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Knob Lock, very rocky, very bouldery-----------	0-3	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	3-7	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	7-9	44-100	0-49	0-20	0.60-1.50	0.6-100	0.10-0.26	0.0-2.9	2.0-21	.17	.24
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
881F:											
Rock outcrop, very bouldery-----------	0-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Knob Lock, very rocky, very bouldery-----------	0-3	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	3-7	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	7-9	44-100	0-49	0-20	0.60-1.50	0.6-100	0.10-0.26	0.0-2.9	2.0-21	.17	.24
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
930C:											
Mundalite, rocky, very bouldery------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	1-3	44-85	0-49	2-18	0.70-1.00	0.6-6	0.10-0.22	0.0-2.9	1.0-4.0	.20	.24
	3-5	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.20	.24
	5-14	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	14-27	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	27-37	44-85	0-49	2-18	1.65-2.00	0.06-0.6	0.06-0.10	0.0-2.9	0.0-1.0	.10	.24
	37-72	44-91	0-49	1-16	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.0	.05	.15
Rawsonville, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Ampersand, rocky, very bouldery------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	4-5	44-91	0-49	0-17	0.80-1.55	0.6-20	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	5-13	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	13-19	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	19-24	44-91	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.15	.20
	24-32	44-91	0-49	0-17	1.75-2.20	0.06-0.2	0.00-0.09	0.0-2.9	0.1-7.0	.10	.15
	32-72	44-91	0-49	0-17	1.75-2.20	0.06-0.2	0.00-0.09	0.0-2.9	0.1-7.0	.10	.20
931D:											
Mundalite, rocky, very bouldery------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	1-3	44-85	0-49	2-18	0.70-1.00	0.6-6	0.10-0.22	0.0-2.9	1.0-4.0	.20	.24
	3-5	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.20	.24
	5-14	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	14-27	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	27-37	44-85	0-49	2-18	1.65-2.00	0.06-0.6	0.06-0.10	0.0-2.9	0.0-1.0	.10	.24
	37-72	44-91	0-49	1-16	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Rawsonville, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
931F:											
Mundalite, rocky, very bouldery------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	1-3	44-85	0-49	2-18	0.70-1.00	0.6-6	0.10-0.22	0.0-2.9	1.0-4.0	.20	.24
	3-5	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.20	.24
	5-14	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	14-27	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	27-37	44-85	0-49	2-18	1.65-2.00	0.06-0.6	0.06-0.10	0.0-2.9	0.0-1.0	.10	.24
	37-72	44-91	0-49	1-16	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.0	.05	.15
Rawsonville, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
932C:											
Mundalite, very bouldery-----------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	1-3	44-85	0-49	2-18	0.70-1.00	0.6-6	0.10-0.22	0.0-2.9	1.0-4.0	.20	.24
	3-5	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.20	.24
	5-14	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	14-27	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	27-37	44-85	0-49	2-18	1.65-2.00	0.06-0.6	0.06-0.10	0.0-2.9	0.0-1.0	.10	.24
	37-72	44-91	0-49	1-16	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Ampersand, very bouldery-----------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	4-5	44-91	0-49	0-17	0.80-1.55	0.6-20	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	5-13	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	13-19	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	19-24	44-91	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.15	.20
	24-32	44-91	0-49	0-17	1.75-2.20	0.06-0.2	0.00-0.09	0.0-2.9	0.1-7.0	.10	.15
	32-72	44-91	0-49	0-17	1.75-2.20	0.06-0.2	0.00-0.09	0.0-2.9	0.1-7.0	.10	.20
932D:											
Mundalite, very bouldery-----------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	1-3	44-85	0-49	2-18	0.70-1.00	0.6-6	0.10-0.22	0.0-2.9	1.0-4.0	.20	.24
	3-5	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.20	.24
	5-14	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	14-27	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	27-37	44-85	0-49	2-18	1.65-2.00	0.06-0.6	0.06-0.10	0.0-2.9	0.0-1.0	.10	.24
	37-72	44-91	0-49	1-16	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.0	.05	.15
Ampersand, very bouldery-----------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	4-5	44-91	0-49	0-17	0.80-1.55	0.6-20	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	5-13	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	13-19	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	19-24	44-91	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.15	.20
	24-32	44-91	0-49	0-17	1.75-2.20	0.06-0.2	0.00-0.09	0.0-2.9	0.1-7.0	.10	.15
	32-72	44-91	0-49	0-17	1.75-2.20	0.06-0.2	0.00-0.09	0.0-2.9	0.1-7.0	.10	.20
934C:											
Ampersand, very bouldery-----------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	4-5	44-91	0-49	0-17	0.80-1.55	0.6-20	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	5-13	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	13-19	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	19-24	44-91	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.15	.20
	24-32	44-91	0-49	0-17	1.75-2.20	0.06-0.2	0.00-0.09	0.0-2.9	0.1-7.0	.10	.15
	32-72	44-91	0-49	0-17	1.75-2.20	0.06-0.2	0.00-0.09	0.0-2.9	0.1-7.0	.10	.20

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Wilmington, very bouldery-----------	0-3	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	3-5	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	5-7	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	7-9	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.15	.20
	9-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.15	.20
	14-19	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.10	.20
	19-72	44-85	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-7.0	.10	.20
941C: Rawsonville, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Hogback, very rocky, very bouldery------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	44-91	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	4-6	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	6-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	14-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
941D: Rawsonville, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Hogback, very rocky, very bouldery------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	44-91	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	4-6	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	6-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	14-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
941F:											
Rawsonville, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Hogback, very rocky, very bouldery------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	44-91	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	4-6	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	6-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	14-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
944D:											
Hogback, very rocky, very bouldery------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	44-91	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	4-6	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	6-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	14-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Knob Lock, very rocky, very bouldery-----------	0-3	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	3-7	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	7-9	44-100	0-49	0-20	0.60-1.50	0.6-100	0.10-0.26	0.0-2.9	2.0-21	.17	.24
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
944F:											
Hogback, very rocky, very bouldery------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	44-91	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	4-6	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	6-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	14-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Knob Lock, very rocky, very bouldery-----------	0-3	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	3-7	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	7-9	44-100	0-49	0-20	0.60-1.50	0.6-100	0.10-0.26	0.0-2.9	2.0-21	.17	.24
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
948F:											
Rock outcrop, very bouldery-----------	0-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Knob Lock, very bouldery-----------	0-3	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	3-7	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	7-9	44-100	0-49	0-20	0.60-1.50	0.6-100	0.10-0.26	0.0-2.9	2.0-21	.17	.24
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Hogback, very bouldery-----------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	44-91	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	4-6	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	6-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	14-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
971D:											
Esther, rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-4	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	4-8	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	8-10	44-91	0-49	0-17	0.50-1.55	0.6-20	0.10-0.30	0.0-2.9	2.0-15	.20	.24
	10-22	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.17	.24
	22-28	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.24
	28-33	44-85	0-49	0-17	0.90-1.75	0.6-6	0.05-0.30	0.0-2.9	2.0-12	.10	.20
	33-72	44-100	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.5-7.0	.10	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Wallface, rocky, very bouldery------	0-4	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	4-9	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	9-10	44-91	0-49	0-17	0.50-1.55	0.6-20	0.10-0.30	0.0-2.9	2.0-15	.20	.24
	10-18	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.17	.24
	18-25	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.24
	25-35	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.24
	35-38	44-85	0-49	0-17	0.90-1.50	0.6-6	0.07-0.30	0.0-2.9	2.0-12	.10	.20
	38-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
975C: Andic Cryaquods, very bouldery------	0-7	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	7-11	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	11-13	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.20
	13-24	44-85	0-49	0-17	0.40-1.10	0.6-6	0.08-0.30	0.0-2.9	10-34	.15	.20
	24-36	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.20
	36-72	44-100	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.5-7.0	.05	.15
Esther, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-4	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	4-8	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	8-10	44-91	0-49	0-17	0.50-1.55	0.6-20	0.10-0.30	0.0-2.9	2.0-15	.20	.24
	10-22	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.17	.24
	22-28	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.24
	28-33	44-85	0-49	0-17	0.90-1.75	0.6-6	0.05-0.30	0.0-2.9	2.0-12	.10	.20
	33-72	44-100	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.5-7.0	.10	.15
975D: Esther, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-4	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	4-8	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	8-10	44-91	0-49	0-17	0.50-1.55	0.6-20	0.10-0.30	0.0-2.9	2.0-15	.20	.24
	10-22	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.17	.24
	22-28	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.24
	28-33	44-85	0-49	0-17	0.90-1.75	0.6-6	0.05-0.30	0.0-2.9	2.0-12	.10	.20
	33-72	44-100	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.5-7.0	.10	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Andic Cryaquods, very bouldery------	0-7	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	7-11	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	11-13	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.20
	13-24	44-85	0-49	0-17	0.40-1.10	0.6-6	0.08-0.30	0.0-2.9	10-34	.15	.20
	24-36	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.20
	36-72	44-100	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.5-7.0	.05	.15
992D: Wallface, very rocky, very bouldery-----------	0-4	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	4-9	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	9-10	44-91	0-49	0-17	0.50-1.55	0.6-20	0.10-0.30	0.0-2.9	2.0-15	.20	.24
	10-18	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.17	.24
	18-25	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.24
	25-35	33-85	0-50	0-17	0.40-1.10	0.6-6	0.10-0.50	0.0-2.9	10-34	.15	.24
	35-38	44-85	0-49	0-17	0.90-1.50	0.6-6	0.07-0.30	0.0-2.9	2.0-12	.10	.20
	38-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Skylight, very rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-5	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	5-9	70-100	0-29	0-15	0.50-1.55	6-100	0.07-0.20	0.0-2.9	2.0-15	.15	.15
	9-15	70-100	0-29	0-15	0.40-1.10	6-100	0.07-0.33	0.0-2.9	10-34	.15	.15
	15-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
993F: Santanoni, very rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	70-100	0-29	0-15	0.50-1.55	6-100	0.07-0.20	0.0-2.9	2.0-15	.10	.15
	3-7	70-100	0-29	0-15	0.40-1.10	6-100	0.07-0.33	0.0-2.9	10-34	.05	.15
	7-14	70-100	0-29	0-15	0.40-1.10	6-100	0.07-0.33	0.0-2.9	10-34	.05	.15
	14-31	70-100	0-29	0-15	0.60-1.50	6-100	0.07-0.26	0.0-2.9	3.0-15	.02	.15
	31-39	70-100	0-29	0-15	0.90-1.55	6-100	0.05-0.20	0.0-2.9	2.0-12	.02	.05
	39-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Skylight, very rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-5	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	5-9	70-100	0-29	0-15	0.50-1.55	6-100	0.07-0.20	0.0-2.9	2.0-15	.15	.15
	9-15	70-100	0-29	0-15	0.40-1.10	6-100	0.07-0.33	0.0-2.9	10-34	.15	.15
	15-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
995D:											
Ricker, very rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-6	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	6-11	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	11-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Couchsachraga, very rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	34-98	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	4-9	70-100	0-29	0-15	0.40-1.10	6-100	0.07-0.33	0.0-2.9	10-34	.05	.05
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Skylight, very rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-5	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	5-9	70-100	0-29	0-15	0.50-1.55	6-100	0.07-0.20	0.0-2.9	2.0-15	.15	.15
	9-15	70-100	0-29	0-15	0.40-1.10	6-100	0.07-0.33	0.0-2.9	10-34	.15	.15
	15-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
995F:											
Ricker, very rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-6	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	6-11	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	11-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Couchsachraga, very rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	34-98	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	4-9	70-100	0-29	0-15	0.40-1.10	6-100	0.07-0.33	0.0-2.9	10-34	.05	.05
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Skylight, very rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-5	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	5-9	70-100	0-29	0-15	0.50-1.55	6-100	0.07-0.20	0.0-2.9	2.0-15	.15	.15
	9-15	70-100	0-29	0-15	0.40-1.10	6-100	0.07-0.33	0.0-2.9	10-34	.15	.15
	15-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
998F:											
Rock outcrop, very bouldery-----------	0-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Ricker, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-6	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	6-11	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	11-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Skylight, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-5	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	5-9	70-100	0-29	0-15	0.50-1.55	6-100	0.07-0.20	0.0-2.9	2.0-15	.15	.15
	9-15	70-100	0-29	0-15	0.40-1.10	6-100	0.07-0.33	0.0-2.9	10-34	.15	.15
	15-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
AdA:											
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
AdB:											
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05
AdC:											
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05
AdD:											
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fa[ctors]	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
AdE:											
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05
AkA:											
Adirondack, very bouldery-----------	0-2	30-80	0-40	0-17	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	---
	2-4	30-80	0-40	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---	---
	4-6	44-85	0-49	0-17	1.00-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-10	.20	.24
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	18-26	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.28	.37
	26-34	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
	34-43	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
	43-72	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
AkB:											
Adirondack, very bouldery-----------	0-2	30-80	0-40	0-17	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	---
	2-4	30-80	0-40	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---	---
	4-6	44-85	0-49	0-17	1.00-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-10	.20	.24
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.5-5.0	.28	.37
	18-26	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.28	.37
	26-34	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
	34-43	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
	43-72	44-91	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24	.32
AmB:											
Amenia--------------	0-9	33-85	0-50	0-17	0.85-1.55	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.20	.24
	9-14	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.24
	14-21	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.20	.24
	21-36	33-85	0-50	0-17	1.70-2.20	0.06-0.2	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24
	36-48	33-85	0-50	0-17	1.75-2.20	0.06-0.2	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24
	48-72	33-85	0-50	0-17	1.75-2.20	0.06-0.2	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
AmC:											
Amenia--------------	0-9	33-85	0-50	0-17	0.85-1.55	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.20	.24
	9-14	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.24
	14-21	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.20	.24
	21-36	33-85	0-50	0-17	1.70-2.20	0.06-0.2	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24
	36-48	33-85	0-50	0-17	1.75-2.20	0.06-0.2	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24
	48-72	33-85	0-50	0-17	1.75-2.20	0.06-0.2	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24
BcB:											
Becket--------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
BcC:											
Becket--------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
BeB:											
Becket, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
BeC:											
Becket, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac (Kw)	(Kf)
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw	Kf
BeD:											
Becket, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
BeF:											
Becket, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
BkC:											
Becket, rocky, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
Tunbridge, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
BkD:											
Becket, rocky, very bouldery	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.06-0.24	0.0-2.9	0.5-4.0	.17	.24
	3-5	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	5-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.06-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	18-33	44-85	0-49	0-17	1.20-1.65	0.6-6	0.04-0.19	0.0-2.9	0.1-3.0	.15	.20
	33-47	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
	47-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
Tunbridge, rocky, very bouldery	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
BoB:											
Bombay	0-10	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.28
	10-18	33-85	0-50	0-17	1.20-1.65	0.2-6	0.08-0.19	0.0-2.9	0.1-5.0	.17	.28
	18-25	33-85	0-50	0-17	1.20-1.65	0.2-6	0.08-0.19	0.0-2.9	0.1-5.0	.17	.28
	25-36	33-85	0-50	0-17	1.30-1.65	0.2-6	0.08-0.18	0.0-2.9	0.1-3.0	.17	.28
	36-72	33-85	0-50	0-17	1.45-2.20	0.06-2	0.00-0.17	0.0-2.9	0.1-1.0	.15	.24
BuA:											
Bucksport	0-7	---	---	---	0.10-0.30	0.2-6	0.20-0.50	---	50-100	---	---
	7-31	---	---	---	0.10-0.30	0.2-6	0.20-0.50	---	80-99	---	---
	31-47	---	---	---	0.10-0.30	0.2-6	0.20-0.50	---	80-99	---	---
	47-72	---	---	---	0.10-0.30	0.2-6	0.20-0.50	---	80-90	---	---
BvA:											
Burnt Vly	0-10	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	10-15	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	15-24	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	24-34	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	34-56	70-100	0-29	0-15	1.35-1.85	0.6-100	0.02-0.10	0.0-2.9	0.1-2.0	.20	.20
	56-72	44-100	0-49	0-20	1.35-1.85	0.6-100	0.02-0.20	0.0-2.9	0.1-2.0	.37	.37

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
CaA:											
Catden--------------	0-3	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	3-6	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	6-37	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	37-46	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	46-71	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	71-80	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
CbA:											
Colton, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
CbB:											
Colton, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
CbC:											
Colton, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
CbD:											
Colton, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
CgB:											
Cayuga--------------	0-8	0-52	28-65	7-40	0.75-1.40	0.2-2	0.12-0.26	0.0-15.0	1.0-15	.49	.49
	8-14	0-52	15-65	7-40	1.10-1.60	0.2-2	0.06-0.20	3.0-15.0	0.1-2.0	.43	.49
	14-19	0-45	0-65	35-60	1.10-1.60	0.00-0.6	0.06-0.20	3.0-15.0	0.1-2.0	.43	.49
	19-24	0-45	0-65	35-60	1.10-1.60	0.00-0.6	0.06-0.20	3.0-15.0	0.1-2.0	.37	.49
	24-28	0-45	0-65	27-60	1.10-1.60	0.00-0.6	0.06-0.20	3.0-15.0	0.1-1.0	.37	.49
	28-72	0-85	0-80	0-27	1.45-2.20	0.00-0.6	0.02-0.20	0.0-2.9	0.1-1.0	.24	.32
CgC:											
Cayuga--------------	0-8	0-52	28-65	7-40	0.75-1.40	0.2-2	0.12-0.26	0.0-15.0	1.0-15	.49	.49
	8-14	0-52	15-65	7-40	1.10-1.60	0.2-2	0.06-0.20	3.0-15.0	0.1-2.0	.43	.49
	14-19	0-45	0-65	35-60	1.10-1.60	0.00-0.6	0.06-0.20	3.0-15.0	0.1-2.0	.43	.49
	19-24	0-45	0-65	35-60	1.10-1.60	0.00-0.6	0.06-0.20	3.0-15.0	0.1-2.0	.37	.49
	24-28	0-45	0-65	27-60	1.10-1.60	0.00-0.6	0.06-0.20	3.0-15.0	0.1-1.0	.37	.49
	28-72	0-85	0-80	0-27	1.45-2.20	0.00-0.6	0.02-0.20	0.0-2.9	0.1-1.0	.24	.32
ChB:											
Champlain-----------	0-7	70-100	0-29	0-15	0.95-1.65	6-20	0.05-0.17	0.0-2.9	1.0-10	.15	.15
	7-10	70-100	0-29	0-15	0.95-1.65	6-20	0.05-0.17	0.0-2.9	1.0-10	.05	.05
	10-16	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.05	.05
	16-24	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.10	.10
	24-35	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.10	.10
	35-50	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.10	.10
	50-72	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.05	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
ChC:											
Champlain-----------	0-7	70-100	0-29	0-15	0.95-1.65	6-20	0.05-0.17	0.0-2.9	1.0-10	.15	.15
	7-10	70-100	0-29	0-15	0.95-1.65	6-20	0.05-0.17	0.0-2.9	1.0-10	.05	.05
	10-16	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.05	.05
	16-24	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.10	.10
	24-35	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.10	.10
	35-50	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.10	.10
	50-72	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.05	.05
ChD:											
Champlain-----------	0-7	70-100	0-29	0-15	0.95-1.65	6-20	0.05-0.17	0.0-2.9	1.0-10	.15	.15
	7-10	70-100	0-29	0-15	0.95-1.65	6-20	0.05-0.17	0.0-2.9	1.0-10	.05	.05
	10-16	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.05	.05
	16-24	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.10	.10
	24-35	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.10	.10
	35-50	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.10	.10
	50-72	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.05	.05
ChE:											
Champlain-----------	0-7	70-100	0-29	0-15	0.95-1.65	6-20	0.05-0.17	0.0-2.9	1.0-10	.15	.15
	7-10	70-100	0-29	0-15	0.95-1.65	6-20	0.05-0.17	0.0-2.9	1.0-10	.05	.05
	10-16	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.05	.05
	16-24	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.10	.10
	24-35	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.10	.10
	35-50	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.10	.10
	50-72	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.05	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
CkA:											
Charles-------------	0-9	3-85	0-80	0-17	0.70-1.45	0.6-6	0.12-0.27	0.0-2.9	1.0-20	.43	.43
	9-16	3-85	0-80	0-17	0.70-1.45	0.6-6	0.12-0.27	0.0-2.9	1.0-20	.43	.43
	16-28	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	28-38	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	38-46	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	46-52	3-100	0-80	0-17	1.20-1.65	0.6-20	0.04-0.22	0.0-2.9	0.0-3.0	.20	.20
	52-72	3-100	0-80	0-17	1.20-1.65	0.6-20	0.04-0.22	0.0-2.9	0.0-3.0	.15	.15
ClB:											
Charlton------------	0-5	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	5-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.20
	11-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.20
	19-36	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.15	.24
	36-45	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.15	.20
	45-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
ClC:											
Charlton------------	0-5	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	5-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.20
	11-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.20
	19-36	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.15	.24
	36-45	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.15	.20
	45-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
ClD:											
Charlton------------	0-5	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	5-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.20
	11-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.20
	19-36	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.15	.24
	36-45	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.15	.20
	45-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
CnC:											
Charlton, rocky, very stony---------	0-5	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	5-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.20
	11-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.20
	19-36	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.15	.24
	36-45	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.15	.20
	45-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fa[ctors]	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Chatfield, rocky, very stony---------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-7	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	7-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.24
	19-27	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	27-32	33-85	0-50	0-17	1.45-1.75	0.6-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
	32-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
CnD: Charlton, rocky, very stony---------	0-5	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	5-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.20
	11-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.20
	19-36	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.15	.24
	36-45	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.15	.20
	45-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
Chatfield, rocky, very stony---------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-7	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	7-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.24
	19-27	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	27-32	33-85	0-50	0-17	1.45-1.75	0.6-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
	32-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
CoB: Chatfield, very rocky, very stony--	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-7	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	7-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.24
	19-27	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	27-32	33-85	0-50	0-17	1.45-1.75	0.6-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
	32-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Hollis, very rocky, very stony---------	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-6	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.24	.28
	6-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	13-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
CoC: Chatfield, very rocky, very stony--	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-7	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	7-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.24
	19-27	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	27-32	33-85	0-50	0-17	1.45-1.75	0.6-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
	32-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Hollis, very rocky, very stony---------	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-6	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.24	.28
	6-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	13-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
CoD:											
Chatfield, very rocky, very stony--	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-7	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	7-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.24
	19-27	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	27-32	33-85	0-50	0-17	1.45-1.75	0.6-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
	32-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Hollis, very rocky, very stony---------	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-6	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.24	.28
	6-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	13-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
CoF:											
Chatfield, very rocky, very stony--	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-7	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	7-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.24
	19-27	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	27-32	33-85	0-50	0-17	1.45-1.75	0.6-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
	32-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Hollis, very rocky, very stony---------	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-6	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.24	.28
	6-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	13-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
CpB:											
Churchville---------	0-9	0-52	28-65	7-40	0.60-1.35	0.2-2	0.13-0.28	0.0-15.0	2.0-20	.43	.49
	9-13	0-45	0-65	35-60	1.10-1.60	0.00-0.6	0.07-0.20	3.0-15.0	0.1-3.0	.49	.49
	13-25	0-45	0-65	35-60	1.10-1.60	0.00-0.6	0.07-0.20	3.0-15.0	0.1-3.0	.49	.49
	25-35	33-85	0-50	0-17	1.75-2.20	0.00-0.6	0.00-0.10	0.0-2.9	0.1-1.0	.15	.24
	35-48	33-85	0-50	0-17	1.75-2.20	0.00-0.6	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24
	48-72	33-85	0-50	0-17	1.75-2.20	0.00-0.6	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24
CqA:											
Claverack----------	0-12	44-91	0-49	0-17	1.00-1.55	2-20	0.04-0.15	0.0-2.9	1.0-10	.24	.24
	12-16	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.17	.17
	16-22	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.17	.17
	22-26	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.17	.17
	26-72	0-45	0-65	35-90	1.10-1.55	0.00-0.2	0.05-0.20	3.0-15.0	0.1-1.0	.49	.49

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
CqB:											
Claverack-----------	0-12	44-91	0-49	0-17	1.00-1.55	2-20	0.04-0.15	0.0-2.9	1.0-10	.24	.24
	12-16	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.17	.17
	16-22	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.17	.17
	22-26	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.17	.17
	26-72	0-45	0-65	35-90	1.10-1.55	0.00-0.2	0.05-0.20	3.0-15.0	0.1-1.0	.49	.49
CrB:											
Collamer------------	0-11	0-85	0-80	0-27	0.80-1.55	0.2-2	0.11-0.28	0.0-5.9	1.0-15	.49	.49
	11-16	0-85	0-80	0-35	1.25-1.65	0.2-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	16-25	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	25-35	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
	35-72	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
CsA:											
Colton--------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
CsB:											
Colton--------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
CsC:											
Colton--------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
CsD:											
Colton--------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05
CsE:											
Colton--------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	70-100	0-29	0-15	1.10-1.75	6-100	0.01-0.19	0.0-2.9	0.1-4.0	.05	.15
	3-6	70-100	0-29	0-15	0.75-1.40	6-100	0.02-0.26	0.0-2.9	2.0-10	.05	.15
	6-13	70-100	0-29	0-15	0.80-1.65	6-100	0.01-0.17	0.0-2.9	1.0-8.0	.05	.15
	13-21	70-100	0-29	0-15	1.35-1.75	6-100	0.01-0.09	0.0-2.9	0.1-2.0	.05	.15
	21-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.07	0.0-2.9	0.1-1.0	.02	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
CtA:											
Cornish-------------	0-12	3-85	0-80	0-17	0.70-1.45	0.6-6	0.12-0.27	0.0-2.9	1.0-20	.43	.43
	12-21	3-85	0-80	0-17	1.20-1.55	0.6-6	0.12-0.25	0.0-2.9	0.1-5.0	.43	.43
	21-35	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	35-42	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	42-48	3-100	0-80	0-17	1.20-1.65	0.6-20	0.04-0.22	0.0-2.9	0.0-3.0	.15	.15
	48-53	3-100	0-80	0-17	1.20-1.65	0.6-20	0.04-0.22	0.0-2.9	0.0-3.0	.43	.43
	53-72	3-100	0-80	0-17	1.20-1.65	0.6-20	0.04-0.22	0.0-2.9	0.0-3.0	.20	.20
CuA:											
Cosad---------------	0-12	44-91	0-49	0-17	1.00-1.55	2-20	0.04-0.15	0.0-2.9	1.0-10	.24	.24
	12-18	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.17	.17
	18-23	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.17	.17
	23-25	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.24	.24
	25-39	0-45	0-65	35-90	1.10-1.55	0.00-0.2	0.05-0.20	3.0-15.0	0.1-1.0	.49	.49
	39-72	0-45	0-65	35-90	1.10-1.55	0.00-0.2	0.05-0.20	3.0-15.0	0.1-1.0	.49	.49
CuB:											
Cosad---------------	0-12	44-91	0-49	0-17	1.00-1.55	2-20	0.04-0.15	0.0-2.9	1.0-10	.24	.24
	12-18	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.17	.17
	18-23	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.17	.17
	23-25	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.12	0.0-2.9	0.1-2.0	.24	.24
	25-39	0-45	0-65	35-90	1.10-1.55	0.00-0.2	0.05-0.20	3.0-15.0	0.1-1.0	.49	.49
	39-72	0-45	0-65	35-90	1.10-1.55	0.00-0.2	0.05-0.20	3.0-15.0	0.1-1.0	.49	.49
CvA:											
Covington-----------	0-9	0-45	0-65	27-90	0.65-1.45	0.00-0.6	0.09-0.26	3.0-15.0	2.0-20	.49	.49
	9-19	0-40	0-39	60-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-3.0	.49	.49
	19-24	0-40	0-39	60-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-3.0	.49	.49
	24-36	0-45	0-60	40-90	1.05-1.55	0.00-0.2	0.01-0.17	3.0-15.0	0.1-3.0	.49	.49
	36-72	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
CwA:											
Croghan-------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	70-100	0-29	0-15	0.60-1.40	2-20	0.04-0.30	0.0-2.9	4.0-30	.10	.10
	3-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.10	.10
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.10	.10
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.10	.10
	14-23	70-100	0-29	0-15	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-3.0	.10	.10
	23-29	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	29-42	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	42-45	44-100	0-49	0-15	1.40-1.75	2-100	0.03-0.15	0.0-2.9	0.1-1.0	.15	.15
	45-72	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
CwB:											
Croghan-------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	70-100	0-29	0-15	0.60-1.40	2-20	0.04-0.30	0.0-2.9	4.0-30	.10	.10
	3-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.10	.10
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.10	.10
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.10	.10
	14-23	70-100	0-29	0-15	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-3.0	.10	.10
	23-29	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	29-42	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	42-45	44-100	0-49	0-15	1.40-1.75	2-100	0.03-0.15	0.0-2.9	0.1-1.0	.15	.15
	45-72	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
DeA:											
Deerfield-----------	0-10	44-91	0-49	0-17	0.95-1.65	2-20	0.05-0.20	0.0-2.9	1.0-10	.15	.15
	10-15	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.05	.05
	15-30	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.05	.05
	30-72	86-100	0-14	0-10	1.40-1.75	6-60	0.03-0.06	0.0-2.9	0.0-1.0	.05	.05
DeB:											
Deerfield-----------	0-10	44-91	0-49	0-17	0.95-1.65	2-20	0.05-0.20	0.0-2.9	1.0-10	.15	.15
	10-15	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.05	.05
	15-30	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.05	.05
	30-72	86-100	0-14	0-10	1.40-1.75	6-60	0.03-0.06	0.0-2.9	0.0-1.0	.05	.05
DpC:											
Depeyster-----------	0-4	0-85	0-80	0-27	0.80-1.55	0.6-2	0.11-0.28	0.0-5.9	1.0-15	.49	.49
	4-7	0-85	0-80	0-27	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	7-13	0-85	0-80	18-35	1.25-1.65	0.06-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	13-18	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	18-25	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	25-31	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
	31-72	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
DpD:											
Depeyster-----------	0-4	0-85	0-80	0-27	0.80-1.55	0.6-2	0.11-0.28	0.0-5.9	1.0-15	.49	.49
	4-7	0-85	0-80	0-27	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	7-13	0-85	0-80	18-35	1.25-1.65	0.06-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	13-18	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	18-25	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	25-31	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
	31-72	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
DuC:											
Dunkirk-------------	0-6	0-85	0-80	0-27	0.80-1.55	0.6-2	0.11-0.28	0.0-5.9	1.0-15	.49	.49
	6-10	0-85	0-80	0-27	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	10-15	0-85	0-80	0-35	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	15-21	0-85	0-80	0-35	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	21-29	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	29-35	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	35-42	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
	42-72	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion fac[tors] Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
DuD:											
Dunkirk	0-6	0-85	0-80	0-27	0.80-1.55	0.6-2	0.11-0.28	0.0-5.9	1.0-15	.49	.49
	6-10	0-85	0-80	0-27	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	10-15	0-85	0-80	0-35	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	15-21	0-85	0-80	0-35	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	21-29	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	29-35	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	35-42	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
	42-72	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
DuE:											
Dunkirk	0-6	0-85	0-80	0-27	0.80-1.55	0.6-2	0.11-0.28	0.0-5.9	1.0-15	.49	.49
	6-10	0-85	0-80	0-27	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	10-15	0-85	0-80	0-35	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	15-21	0-85	0-80	0-35	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	21-29	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	29-35	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	35-42	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
	42-72	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
DxB:											
Duxbury	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	44-85	0-49	0-17	0.40-1.35	0.6-6	0.10-0.40	0.0-2.9	4.0-30	.32	.32
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.32	.32
	5-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.10-0.40	0.0-2.9	4.0-10	.32	.32
	13-21	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.24	.32
	21-31	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.08	0.0-2.9	0.1-1.0	.02	.05
	31-36	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.08	0.0-2.9	0.1-1.0	.02	.05
	36-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.08	0.0-2.9	0.1-1.0	.02	.05
ElB:											
Elmridge	0-8	33-85	0-50	0-17	0.85-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-15	.28	.28
	8-15	33-85	0-50	0-17	1.20-1.65	0.6-6	0.07-0.19	0.0-2.9	0.1-5.0	.28	.28
	15-25	33-85	0-50	0-17	1.20-1.65	0.6-6	0.07-0.19	0.0-2.9	0.1-5.0	.28	.28
	25-31	0-20	40-65	35-60	1.10-1.55	0.00-0.6	0.13-0.20	3.0-15.0	0.1-3.0	.43	.43
	31-46	0-45	0-65	35-90	1.10-1.55	0.00-0.6	0.09-0.19	3.0-15.0	0.1-1.0	.43	.43
	46-72	0-45	0-65	35-90	1.10-1.55	0.00-0.6	0.09-0.19	3.0-15.0	0.1-1.0	.43	.43
FaD:											
Farmington, very rocky, very stony	0-6	15-85	0-80	10-27	0.85-1.45	0.6-6	0.05-0.28	0.0-2.9	1.0-15	.24	.32
	6-13	15-85	0-80	10-27	1.20-1.55	0.6-6	0.05-0.21	0.0-2.9	0.1-5.0	.20	.32
	13-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
FcB:											
Factoryville--------	0-11	70-100	0-29	0-15	0.95-1.65	6-20	0.04-0.14	0.0-2.9	1.0-10	.20	.20
	11-19	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	19-29	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	29-33	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	33-65	70-100	0-29	0-15	1.40-1.75	6-20	0.04-0.10	0.0-2.9	0.0-1.0	.10	.10
	65-72	70-100	0-29	0-15	1.40-1.75	6-20	0.04-0.10	0.0-2.9	0.0-1.0	.10	.10
Colonie, calcareous substratum---------	0-9	70-100	0-29	0-15	1.00-1.65	2-20	0.06-0.14	0.0-2.9	1.0-10	.24	.24
	9-14	70-100	0-29	0-15	1.30-1.75	2-20	0.06-0.11	0.0-2.9	0.1-3.0	.24	.24
	14-25	70-100	0-29	0-15	1.30-1.75	2-20	0.05-0.11	0.0-2.9	0.1-3.0	.10	.10
	25-37	44-100	0-49	2-17	1.30-1.75	2-20	0.05-0.17	0.0-2.9	0.1-3.0	.10	.10
	37-49	44-100	0-49	2-17	1.30-1.75	2-20	0.05-0.17	0.0-2.9	0.1-3.0	.10	.10
	49-56	70-100	0-29	0-15	1.40-1.75	2-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.10
	56-61	70-100	0-29	0-15	1.40-1.75	2-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.10
	61-72	70-100	0-29	0-15	1.40-1.75	2-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.10
FcC:											
Factoryville--------	0-11	70-100	0-29	0-15	0.95-1.65	6-20	0.04-0.14	0.0-2.9	1.0-10	.20	.20
	11-19	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	19-29	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	29-33	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	33-65	70-100	0-29	0-15	1.40-1.75	6-20	0.04-0.10	0.0-2.9	0.0-1.0	.10	.10
	65-72	70-100	0-29	0-15	1.40-1.75	6-20	0.04-0.10	0.0-2.9	0.0-1.0	.10	.10

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Colonie, calcareous substratum---------	0-9	70-100	0-29	0-15	1.00-1.65	2-20	0.06-0.14	0.0-2.9	1.0-10	.24	.24
	9-14	70-100	0-29	0-15	1.30-1.75	2-20	0.06-0.11	0.0-2.9	0.1-3.0	.24	.24
	14-25	70-100	0-29	0-15	1.30-1.75	2-20	0.05-0.11	0.0-2.9	0.1-3.0	.10	.10
	25-37	44-100	0-49	2-17	1.30-1.75	2-20	0.05-0.17	0.0-2.9	0.1-3.0	.10	.10
	37-49	44-100	0-49	2-17	1.30-1.75	2-20	0.05-0.17	0.0-2.9	0.1-3.0	.10	.10
	49-56	70-100	0-29	0-15	1.40-1.75	2-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.10
	56-61	70-100	0-29	0-15	1.40-1.75	2-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.10
	61-72	70-100	0-29	0-15	1.40-1.75	2-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.10
FcD:											
Factoryville--------	0-11	70-100	0-29	0-15	0.95-1.65	6-20	0.04-0.14	0.0-2.9	1.0-10	.20	.20
	11-19	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	19-29	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	29-33	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	33-65	70-100	0-29	0-15	1.40-1.75	6-20	0.04-0.10	0.0-2.9	0.0-1.0	.10	.10
	65-72	70-100	0-29	0-15	1.40-1.75	6-20	0.04-0.10	0.0-2.9	0.0-1.0	.10	.10
Colonie, calcareous substratum---------	0-9	70-100	0-29	0-15	1.00-1.65	2-20	0.06-0.14	0.0-2.9	1.0-10	.24	.24
	9-14	70-100	0-29	0-15	1.30-1.75	2-20	0.06-0.11	0.0-2.9	0.1-3.0	.24	.24
	14-25	70-100	0-29	0-15	1.30-1.75	2-20	0.05-0.11	0.0-2.9	0.1-3.0	.10	.10
	25-37	44-100	0-49	2-17	1.30-1.75	2-20	0.05-0.17	0.0-2.9	0.1-3.0	.10	.10
	37-49	44-100	0-49	2-17	1.30-1.75	2-20	0.05-0.17	0.0-2.9	0.1-3.0	.10	.10
	49-56	70-100	0-29	0-15	1.40-1.75	2-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.10
	56-61	70-100	0-29	0-15	1.40-1.75	2-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.10
	61-72	70-100	0-29	0-15	1.40-1.75	2-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.10

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
FdF:											
Factoryville--------	0-11	70-100	0-29	0-15	0.95-1.65	6-20	0.04-0.14	0.0-2.9	1.0-10	.20	.20
	11-19	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	19-29	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	29-33	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	33-65	70-100	0-29	0-15	1.40-1.75	6-20	0.04-0.10	0.0-2.9	0.0-1.0	.10	.10
	65-72	70-100	0-29	0-15	1.40-1.75	6-20	0.04-0.10	0.0-2.9	0.0-1.0	.10	.10
Dunkirk-------------	0-6	0-85	0-80	0-27	0.80-1.55	0.6-2	0.11-0.28	0.0-5.9	1.0-15	.49	.49
	6-10	0-85	0-80	0-27	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	10-15	0-85	0-80	0-35	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	15-21	0-85	0-80	0-35	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	21-29	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	29-35	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	35-42	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
	42-72	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
FgB:											
Farmington, very rocky, very stony--	0-6	15-85	0-80	10-27	0.85-1.45	0.6-6	0.05-0.28	0.0-2.9	1.0-15	.24	.32
	6-13	15-85	0-80	10-27	1.20-1.55	0.6-6	0.05-0.21	0.0-2.9	0.1-5.0	.20	.32
	13-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Galway, very rocky, very stony---------	0-5	15-85	0-80	0-17	0.85-1.45	0.6-6	0.05-0.28	0.0-2.9	1.0-15	.24	.28
	5-9	15-85	0-80	0-17	1.20-1.55	0.6-6	0.05-0.21	0.0-2.9	0.1-5.0	.20	.24
	9-18	15-85	0-80	0-17	1.20-1.55	0.6-6	0.05-0.21	0.0-2.9	0.1-5.0	.20	.24
	18-35	15-85	0-80	0-17	1.45-1.75	0.6-6	0.05-0.21	0.0-2.9	0.1-1.0	.15	.24
	35-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
FkF:											
Farmington, very stony--------------	0-6	15-85	0-80	10-27	0.85-1.45	0.6-6	0.05-0.28	0.0-2.9	1.0-15	.24	.32
	6-13	15-85	0-80	10-27	1.20-1.55	0.6-6	0.05-0.21	0.0-2.9	0.1-5.0	.20	.32
	13-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Rock outcrop, very stony--------------	0-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
FnB:											
Fernlake, very bouldery	0-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-4	70-91	0-29	0-15	1.00-1.75	2-20	0.02-0.19	0.0-2.9	0.1-4.0	.15	.20
	4-8	44-91	0-49	0-17	0.75-1.65	2-20	0.02-0.19	0.0-2.9	1.0-8.0	.15	.20
	8-19	70-100	0-29	0-15	1.35-1.75	2-20	0.02-0.10	0.0-2.9	0.1-3.0	.10	.20
	19-33	70-100	0-29	0-15	1.35-1.75	2-20	0.02-0.10	0.0-2.9	0.1-3.0	.15	.20
	33-41	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.17
	41-57	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.17
	57-72	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.10
FnC:											
Fernlake, very bouldery	0-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-4	70-91	0-29	0-15	1.00-1.75	2-20	0.02-0.19	0.0-2.9	0.1-4.0	.15	.20
	4-8	44-91	0-49	0-17	0.75-1.65	2-20	0.02-0.19	0.0-2.9	1.0-8.0	.15	.20
	8-19	70-100	0-29	0-15	1.35-1.75	2-20	0.02-0.10	0.0-2.9	0.1-3.0	.10	.20
	19-33	70-100	0-29	0-15	1.35-1.75	2-20	0.02-0.10	0.0-2.9	0.1-3.0	.15	.20
	33-41	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.17
	41-57	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.17
	57-72	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.10
FnD:											
Fernlake, very bouldery	0-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-4	70-91	0-29	0-15	1.00-1.75	2-20	0.02-0.19	0.0-2.9	0.1-4.0	.15	.20
	4-8	44-91	0-49	0-17	0.75-1.65	2-20	0.02-0.19	0.0-2.9	1.0-8.0	.15	.20
	8-19	70-100	0-29	0-15	1.35-1.75	2-20	0.02-0.10	0.0-2.9	0.1-3.0	.10	.20
	19-33	70-100	0-29	0-15	1.35-1.75	2-20	0.02-0.10	0.0-2.9	0.1-3.0	.15	.20
	33-41	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.17
	41-57	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.17
	57-72	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.10

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion fac Kw	Erosion fac Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
FnF: Fernlake, very bouldery	0-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-4	70-91	0-29	0-15	1.00-1.75	2-20	0.02-0.19	0.0-2.9	0.1-4.0	.15	.20
	4-8	44-91	0-49	0-17	0.75-1.65	2-20	0.02-0.19	0.0-2.9	1.0-8.0	.15	.20
	8-19	70-100	0-29	0-15	1.35-1.75	2-20	0.02-0.10	0.0-2.9	0.1-3.0	.10	.20
	19-33	70-100	0-29	0-15	1.35-1.75	2-20	0.02-0.10	0.0-2.9	0.1-3.0	.15	.20
	33-41	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.17
	41-57	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.17
	57-72	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.10
FrB: Factoryville	0-11	70-100	0-29	0-15	0.95-1.65	6-20	0.04-0.14	0.0-2.9	1.0-10	.20	.20
	11-19	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	19-29	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	29-33	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.11	0.0-2.9	0.1-3.0	.20	.20
	33-65	70-100	0-29	0-15	1.40-1.75	6-20	0.04-0.10	0.0-2.9	0.0-1.0	.10	.10
	65-72	70-100	0-29	0-15	1.40-1.75	6-20	0.04-0.10	0.0-2.9	0.0-1.0	.10	.10
FuA: Fluvaquents, frequently flooded	0-5	44-100	0-49	0-17	0.75-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-20	.37	.37
	5-9	44-100	0-49	0-17	0.75-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-20	.24	.24
	9-21	44-100	0-49	0-17	0.75-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-20	.37	.37
	21-30	44-100	0-49	0-17	1.20-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-3.0	.37	.37
	30-42	44-100	0-49	0-17	1.20-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-3.0	.24	.24
	42-72	44-100	0-49	0-17	1.20-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-3.0	.02	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Udifluvents, frequently flooded-	0-4	44-100	0-49	0-17	1.20-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-2.0	.24	.24
	4-6	44-100	0-49	0-17	0.95-1.55	0.6-100	0.02-0.24	0.0-2.9	1.0-10	.28	.28
	6-10	44-100	0-49	0-17	1.20-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-2.0	.28	.28
	10-12	44-100	0-49	0-17	0.95-1.55	0.6-100	0.02-0.24	0.0-2.9	1.0-10	.28	.28
	12-24	44-100	0-49	0-17	1.20-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-2.0	.28	.28
	24-28	44-100	0-49	0-17	0.95-1.55	0.6-100	0.02-0.24	0.0-2.9	1.0-10	.28	.28
	28-34	44-100	0-49	0-17	1.20-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-2.0	.24	.24
	34-38	44-100	0-49	0-17	0.95-1.55	0.6-100	0.02-0.24	0.0-2.9	1.0-10	.28	.28
	38-44	44-100	0-49	0-17	1.20-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-2.0	.28	.28
	44-56	44-100	0-49	0-17	1.20-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-2.0	.28	.28
	56-72	44-100	0-49	0-17	1.20-1.65	0.6-100	0.02-0.24	0.0-2.9	0.0-2.0	.02	.05
GeB:											
Georgia-------------	0-9	15-55	28-80	0-17	0.85-1.45	0.6-6	0.08-0.28	0.0-2.9	1.0-15	.24	.28
	9-15	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	15-20	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	20-30	33-85	0-50	0-17	1.30-1.55	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.17	.24
	30-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.15	.24
GeC:											
Georgia-------------	0-9	15-55	28-80	0-17	0.85-1.45	0.6-6	0.08-0.28	0.0-2.9	1.0-15	.24	.28
	9-15	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	15-20	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	20-30	33-85	0-50	0-17	1.30-1.55	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.17	.24
	30-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.15	.24
GoA:											
Gougeville----------	0-6	71-89	1-29	1-10	1.10-1.30	2-6	0.10-0.20	0.0-2.9	8.0-20	.17	.17
	6-12	71-100	0-29	1-7	1.20-1.50	6-20	0.06-0.08	0.0-2.9	0.0-2.0	.15	.15
	12-25	71-100	0-29	1-7	1.20-1.50	6-20	0.06-0.08	0.0-2.9	0.0-2.0	.15	.15
	25-40	71-100	0-29	1-7	1.20-1.50	6-20	0.06-0.08	0.0-2.9	0.0-2.0	.15	.15
	40-58	44-100	0-49	1-20	1.30-1.60	2-20	0.05-0.15	0.0-2.9	0.0-0.0	.17	.17
	58-72	44-100	0-49	1-20	1.30-1.60	2-20	0.05-0.15	0.0-2.9	0.0-0.0	.17	.17

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
HaB:											
Hailesboro----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-9	0-85	0-80	0-27	0.80-1.55	0.6-2	0.11-0.28	0.0-5.9	1.0-15	.49	.49
	9-17	0-85	0-80	0-27	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	17-23	0-85	0-80	0-27	1.25-1.65	0.6-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	23-30	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	30-44	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	44-54	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
	54-72	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
HcB:											
Howard--------------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-4	24-85	0-50	0-27	0.85-1.55	0.6-6	0.05-0.20	0.0-2.9	1.0-15	.10	.28
	4-11	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.15	.28
	11-15	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.10	.28
	15-22	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-5.0	.10	.28
	22-35	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.05	.15
	35-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.05	.15
HcC:											
Howard--------------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-4	24-85	0-50	0-27	0.85-1.55	0.6-6	0.05-0.20	0.0-2.9	1.0-15	.10	.28
	4-11	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.15	.28
	11-15	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.10	.28
	15-22	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-5.0	.10	.28
	22-35	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.05	.15
	35-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.05	.15
HcD:											
Howard--------------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-4	24-85	0-50	0-27	0.85-1.55	0.6-6	0.05-0.20	0.0-2.9	1.0-15	.10	.28
	4-11	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.15	.28
	11-15	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.10	.28
	15-22	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-5.0	.10	.28
	22-35	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.05	.15
	35-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
HdB:											
Hartland------------	0-12	3-85	0-80	0-17	0.95-1.45	0.6-6	0.12-0.25	0.0-2.9	1.0-10	.43	.43
	12-19	3-85	0-80	0-17	1.30-1.60	0.6-6	0.12-0.22	0.0-2.9	0.1-3.0	.43	.43
	19-30	3-85	0-80	0-17	1.30-1.60	0.6-6	0.12-0.22	0.0-2.9	0.1-3.0	.43	.43
	30-45	3-85	0-80	0-17	1.35-1.60	0.6-6	0.12-0.21	0.0-2.9	0.1-1.0	.49	.49
	45-60	3-85	0-80	0-17	1.35-1.60	0.6-6	0.12-0.21	0.0-2.9	0.1-1.0	.43	.43
	60-72	3-85	0-80	0-17	1.35-1.60	0.6-6	0.08-0.21	0.0-2.9	0.1-1.0	.24	.24
HgB:											
Howard--------------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-4	24-85	0-50	0-27	0.85-1.55	0.6-6	0.05-0.20	0.0-2.9	1.0-15	.10	.28
	4-11	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.15	.28
	11-15	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.10	.28
	15-22	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-5.0	.10	.28
	22-35	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.05	.15
	35-72	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.05	.15
HlB:											
Howard--------------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	1-6	24-85	0-50	0-27	0.85-1.55	0.6-6	0.05-0.20	0.0-2.9	1.0-15	.10	.28
	6-10	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.10	.28
	10-13	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.10	.28
	13-20	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-5.0	.10	.28
	20-29	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-5.0	.10	.28
	29-33	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-3.0	.10	.28
	33-54	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.02	.15
	54-72	33-85	0-50	0-17	1.45-2.20	0.06-6	0.06-0.17	0.0-2.9	0.1-1.0	.17	.24
HlC:											
Howard--------------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	1-6	24-85	0-50	0-27	0.85-1.55	0.6-6	0.05-0.20	0.0-2.9	1.0-15	.10	.28
	6-10	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.10	.28
	10-13	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.10	.28
	13-20	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-5.0	.10	.28
	20-29	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-5.0	.10	.28
	29-33	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-3.0	.10	.28
	33-54	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.02	.15
	54-72	33-85	0-50	0-17	1.45-2.20	0.06-6	0.06-0.17	0.0-2.9	0.1-1.0	.17	.24

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
HmB:											
Howard---------------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	1-6	24-85	0-50	0-27	0.85-1.55	0.6-6	0.05-0.23	0.0-2.9	1.0-15	.10	.28
	6-10	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.10	.28
	10-13	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-5.0	.10	.28
	13-20	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-5.0	.10	.28
	20-29	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-5.0	.10	.28
	29-33	24-85	0-50	0-27	1.20-1.65	0.6-6	0.03-0.12	0.0-2.9	0.1-3.0	.10	.28
	33-54	70-100	0-29	0-15	1.40-1.75	20-100	0.01-0.05	0.0-2.9	0.1-1.0	.02	.15
	54-72	33-85	0-50	0-17	1.45-2.20	0.06-6	0.06-0.17	0.0-2.9	0.1-1.0	.17	.24
HnC:											
Hermon, very bouldery------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-5	44-91	0-49	0-17	0.75-1.50	2-20	0.04-0.21	0.0-2.9	0.1-4.0	.10	.15
	5-10	44-91	0-49	0-17	0.65-1.40	2-20	0.05-0.34	0.0-2.9	4.0-10	.10	.15
	10-20	44-91	0-49	0-17	0.75-1.55	2-20	0.03-0.26	0.0-2.9	1.0-8.0	.05	.15
	20-29	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
	29-38	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
	38-72	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
HnD:											
Hermon, very bouldery------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-5	44-91	0-49	0-17	0.75-1.50	2-20	0.04-0.21	0.0-2.9	0.1-4.0	.10	.15
	5-10	44-91	0-49	0-17	0.65-1.40	2-20	0.05-0.34	0.0-2.9	4.0-10	.10	.15
	10-20	44-91	0-49	0-17	0.75-1.55	2-20	0.03-0.26	0.0-2.9	1.0-8.0	.05	.15
	20-29	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
	29-38	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
	38-72	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
HrF:											
Hogback, very rocky, very bouldery------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	44-91	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	4-6	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	6-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	14-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Knob Lock, very rocky, very bouldery-----------	0-3	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	3-7	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	7-9	44-100	0-49	0-20	0.60-1.50	0.6-100	0.10-0.26	0.0-2.9	2.0-21	.17	.24
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
HsD:											
Hollis, very stony--	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-6	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.24	.28
	6-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	13-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Rock outcrop, very stony--------------	0-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
HsF:											
Hollis, very stony--	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-6	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.24	.28
	6-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	13-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Rock outcrop, very stony--------------	0-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
KaB:											
Kalurah-------------	0-9	15-85	0-80	0-17	0.85-1.45	0.6-6	0.05-0.27	0.0-2.9	1.0-15	.24	.32
	9-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.15	.24
	13-22	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.15	.24
	22-32	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.16	0.0-2.9	0.1-3.0	.15	.24
	32-47	44-85	0-49	0-17	1.45-2.20	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.24
	47-72	44-85	0-49	0-17	1.45-2.20	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.10	.20
KaC:											
Kalurah-------------	0-9	15-85	0-80	0-17	0.85-1.45	0.6-6	0.05-0.27	0.0-2.9	1.0-15	.24	.32
	9-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.15	.24
	13-22	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.15	.24
	22-32	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.16	0.0-2.9	0.1-3.0	.15	.24
	32-47	44-85	0-49	0-17	1.45-2.20	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.24
	47-72	44-85	0-49	0-17	1.45-2.20	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.10	.20
KgB:											
Kalurah, very stony-	0-9	15-85	0-80	0-17	0.85-1.45	0.6-6	0.05-0.27	0.0-2.9	1.0-15	.24	.32
	9-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.15	.24
	13-22	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.15	.24
	22-32	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.16	0.0-2.9	0.1-3.0	.15	.24
	32-47	44-85	0-49	0-17	1.45-2.20	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.24
	47-72	44-85	0-49	0-17	1.45-2.20	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.10	.20

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
KgC:											
Kalurah, very stony-	0-9	15-85	0-80	0-17	0.85-1.45	0.6-6	0.05-0.27	0.0-2.9	1.0-15	.24	.32
	9-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.15	.24
	13-22	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.15	.24
	22-32	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.16	0.0-2.9	0.1-3.0	.15	.24
	32-47	44-85	0-49	0-17	1.45-2.20	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.24
	47-72	44-85	0-49	0-17	1.45-2.20	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.10	.20
KyA:											
Kingsbury-----------	0-9	0-45	0-65	27-90	0.75-1.45	0.00-0.6	0.09-0.26	3.0-15.0	2.0-15	.49	.49
	9-14	0-40	0-39	58-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-2.0	.49	.49
	14-21	0-40	0-39	60-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-2.0	.49	.49
	21-34	0-45	0-60	40-90	1.05-1.55	0.00-0.2	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	34-65	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	65-93	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
KyB:											
Kingsbury-----------	0-9	0-45	0-65	27-90	0.75-1.45	0.00-0.6	0.09-0.26	3.0-15.0	2.0-15	.49	.49
	9-14	0-40	0-39	58-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-2.0	.49	.49
	14-21	0-40	0-39	60-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-2.0	.49	.49
	21-34	0-45	0-60	40-90	1.05-1.55	0.00-0.2	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	34-65	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	65-93	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
LnA:											
Livingston----------	0-9	0-45	0-65	27-90	0.50-1.45	0.00-0.6	0.09-0.32	3.0-15.0	2.0-30	.49	.49
	9-21	0-40	0-39	60-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-3.0	.49	.49
	21-35	0-40	0-39	60-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-3.0	.49	.49
	35-46	0-45	0-60	40-90	1.05-1.55	0.00-0.2	0.01-0.17	3.0-15.0	0.1-3.0	.49	.49
	46-56	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	56-72	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
LvA:											
Lovewell------------	0-11	44-85	0-49	7-20	0.95-1.35	0.6-2	0.12-0.24	0.0-2.9	2.0-8.0	.37	.37
	11-20	0-85	0-80	7-20	0.95-1.40	0.6-2	0.12-0.21	0.0-2.9	0.5-2.0	.49	.49
	20-30	0-85	0-80	7-20	0.95-1.40	0.6-2	0.12-0.21	0.0-2.9	0.5-2.0	.49	.49
	30-50	3-91	0-80	0-17	1.10-1.50	0.6-2	0.10-0.21	0.0-2.9	0.0-1.0	.49	.49
	50-56	86-100	0-14	0-18	1.30-1.50	6-20	0.04-0.08	0.0-2.9	0.0-0.5	.10	.10
	56-75	86-100	0-14	0-18	1.30-1.50	6-20	0.04-0.08	0.0-2.9	0.0-0.5	.10	.10
LyD:											
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Knob Lock, very rocky, very bouldery-----------	0-3	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	3-7	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	7-9	44-100	0-49	0-20	0.60-1.50	0.6-100	0.10-0.26	0.0-2.9	2.0-21	.17	.24
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
LyF: Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Knob Lock, very rocky, very bouldery-----------	0-3	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	3-7	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	7-9	44-100	0-49	0-20	0.60-1.50	0.6-100	0.10-0.26	0.0-2.9	2.0-21	.17	.24
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
MaB: Malone--------------	0-7	15-85	0-80	0-17	0.85-1.45	0.6-6	0.05-0.27	0.0-2.9	1.0-15	.28	.32
	7-12	15-85	0-80	0-17	1.20-1.55	0.6-6	0.05-0.22	0.0-2.9	0.1-5.0	.28	.32
	12-17	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.24	.28
	17-25	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.24	.28
	25-72	33-85	0-50	0-17	1.75-2.20	0.06-0.6	0.00-0.17	0.0-2.9	0.1-1.0	.24	.28
MbB: Malone, very stony--	0-7	15-85	0-80	0-17	0.85-1.45	0.6-6	0.05-0.27	0.0-2.9	1.0-15	.28	.32
	7-12	15-85	0-80	0-17	1.20-1.55	0.6-6	0.05-0.22	0.0-2.9	0.1-5.0	.28	.32
	12-17	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.24	.28
	17-25	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.24	.28
	25-72	33-85	0-50	0-17	1.75-2.20	0.06-0.6	0.00-0.17	0.0-2.9	0.1-1.0	.24	.28
McA: Massena------------	0-9	15-85	0-80	0-17	0.70-1.55	0.6-6	0.05-0.30	0.0-2.9	1.0-20	.20	.32
	9-18	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	18-24	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	24-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.03-0.14	0.0-2.9	0.1-1.0	.10	.20

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
McB:											
Massena-------------	0-9	15-85	0-80	0-17	0.70-1.55	0.6-6	0.05-0.30	0.0-2.9	1.0-20	.20	.32
	9-18	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	18-24	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	24-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.03-0.14	0.0-2.9	0.1-1.0	.10	.20
MdA:											
Medomak-------------	0-1	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	1-5	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	5-11	3-85	0-80	0-17	0.60-1.45	0.6-6	0.12-0.33	0.0-2.9	1.0-30	.28	.28
	11-20	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	20-29	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	29-31	3-85	0-80	0-17	0.60-1.45	0.6-6	0.12-0.33	0.0-2.9	1.0-30	.28	.28
	31-41	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	41-48	3-91	0-80	0-17	1.20-1.65	0.6-6	0.10-0.22	0.0-2.9	0.0-3.0	.43	.43
	48-72	3-100	0-80	0-17	1.20-1.65	0.6-20	0.04-0.22	0.0-2.9	0.0-3.0	.43	.43
MhB:											
Monadnock-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
MhC:											
Monadnock-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
MkB:											
Monadnock, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
MkC:											
Monadnock, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
MkD:											
Monadnock, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
MkF:											
Monadnock, very bouldery-----------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
MmF:											
Monadnock, bouldery-	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
Adams---------------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-4	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	4-5	70-100	0-29	0-15	1.10-1.75	2-20	0.03-0.20	0.0-2.9	0.1-4.0	.05	.05
	5-8	70-100	0-29	0-15	0.75-1.40	2-20	0.04-0.30	0.0-2.9	4.0-10	.15	.15
	8-14	70-100	0-29	0-15	0.80-1.65	2-20	0.03-0.20	0.0-2.9	1.0-8.0	.15	.15
	14-23	86-100	0-14	0-10	1.35-1.75	2-100	0.03-0.10	0.0-2.9	0.1-2.0	.05	.05
	23-72	86-100	0-14	0-10	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.05	.05
MnC:											
Monadnock, rocky, very bouldery------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
Tunbridge, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
MnD:											
Monadnock, rocky, very bouldery------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
Tunbridge, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
MnF:											
Monadnock, rocky, very bouldery------	0-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	2-3	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.25	0.0-2.9	0.5-4.0	.20	.24
	3-12	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	12-19	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.30	0.0-2.9	2.0-8.0	.17	.24
	19-30	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.20	0.0-2.9	0.1-3.0	.17	.24
	30-37	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.10	.15
	37-72	70-100	0-29	0-15	1.30-1.75	2-100	0.02-0.07	0.0-2.9	0.1-3.0	.02	.05
Tunbridge, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
MoA:											
Mooers--------------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-4	70-100	0-29	0-15	0.95-1.65	6-20	0.05-0.17	0.0-2.9	1.0-10	.20	.20
	4-16	70-100	0-29	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.20	.20
	16-22	86-100	0-14	0-15	1.30-1.75	6-20	0.04-0.10	0.0-2.9	0.1-3.0	.10	.10
	22-42	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.10	.10
	42-58	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.05	.05
	58-72	70-100	0-29	0-15	1.40-1.75	6-20	0.03-0.09	0.0-2.9	0.0-1.0	.05	.05
MuC:											
Mundalite, very bouldery-----------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	1-3	44-85	0-49	2-18	0.70-1.00	0.6-6	0.10-0.22	0.0-2.9	1.0-4.0	.20	.24
	3-5	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.20	.24
	5-14	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	14-27	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	27-37	44-85	0-49	2-18	1.65-2.00	0.06-0.6	0.06-0.10	0.0-2.9	0.0-1.0	.10	.24
	37-72	44-91	0-49	1-16	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.0	.05	.15
MuD:											
Mundalite, very bouldery-----------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	1-3	44-85	0-49	2-18	0.70-1.00	0.6-6	0.10-0.22	0.0-2.9	1.0-4.0	.20	.24
	3-5	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.20	.24
	5-14	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	14-27	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	27-37	44-85	0-49	2-18	1.65-2.00	0.06-0.6	0.06-0.10	0.0-2.9	0.0-1.0	.10	.24
	37-72	44-91	0-49	1-16	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.0	.05	.15
MwC:											
Mundalite, rocky, very bouldery------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	1-3	44-85	0-49	2-18	0.70-1.00	0.6-6	0.10-0.22	0.0-2.9	1.0-4.0	.20	.24
	3-5	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.20	.24
	5-14	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	14-27	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	27-37	44-85	0-49	2-18	1.65-2.00	0.06-0.6	0.06-0.10	0.0-2.9	0.0-1.0	.10	.24
	37-72	44-91	0-49	1-16	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Rawsonville, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
MwD:											
Mundalite, rocky, very bouldery------	0-1	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	1-3	44-85	0-49	2-18	0.70-1.00	0.6-6	0.10-0.22	0.0-2.9	1.0-4.0	.20	.24
	3-5	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.20	.24
	5-14	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	14-27	32-85	0-50	2-18	0.80-1.10	0.6-6	0.13-0.45	0.0-2.9	3.0-12	.17	.24
	27-37	44-85	0-49	2-18	1.65-2.00	0.06-0.6	0.06-0.10	0.0-2.9	0.0-1.0	.10	.24
	37-72	44-91	0-49	1-16	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.0	.05	.15
Rawsonville, rocky, very bouldery------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
NaA:											
Naumburg------------	0-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-7	70-100	0-29	0-15	1.10-1.75	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.20	.20
	7-10	70-100	0-29	0-15	0.75-1.40	6-20	0.04-0.30	0.0-2.9	4.0-10	.20	.20
	10-18	70-100	0-29	0-15	0.80-1.65	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.20	.20
	18-31	70-100	0-29	0-15	1.35-1.75	6-20	0.03-0.10	0.0-2.9	0.1-3.0	.10	.10
	31-54	70-100	0-29	0-15	1.40-1.75	6-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	54-72	70-100	0-29	0-15	1.40-1.75	6-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
NeB:											
Nellis--------------	0-9	33-85	0-50	0-17	0.85-1.55	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.20	.24
	9-16	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.24
	16-21	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.24
	21-26	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.20	.24
	26-37	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.20	.24
	37-60	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.20	.24
	60-72	33-85	0-50	0-17	1.75-2.20	0.06-0.6	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24
NeC:											
Nellis--------------	0-9	33-85	0-50	0-17	0.85-1.55	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.20	.24
	9-16	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.24
	16-21	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.24
	21-26	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.20	.24
	26-37	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.20	.24
	37-60	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.20	.24
	60-72	33-85	0-50	0-17	1.75-2.20	0.06-0.6	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24
NeD:											
Nellis--------------	0-9	33-85	0-50	0-17	0.85-1.55	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.20	.24
	9-16	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.24
	16-21	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.24
	21-26	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.20	.24
	26-37	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.20	.24
	37-60	33-85	0-50	0-17	1.45-1.75	0.2-6	0.05-0.17	0.0-2.9	0.1-1.0	.20	.24
	60-72	33-85	0-50	0-17	1.75-2.20	0.06-0.6	0.00-0.10	0.0-2.9	0.1-1.0	.17	.24
NgA:											
Niagara-------------	0-9	0-85	0-80	0-27	0.80-1.55	0.2-2	0.11-0.28	0.0-5.9	1.0-15	.49	.49
	9-12	0-85	0-80	0-27	1.25-1.65	0.2-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	12-18	0-85	0-80	0-27	1.25-1.65	0.2-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	18-35	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	35-48	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
	48-72	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
NgB:											
Niagara-------------	0-9	0-85	0-80	0-27	0.80-1.55	0.2-2	0.11-0.28	0.0-5.9	1.0-15	.49	.49
	9-12	0-85	0-80	0-27	1.25-1.65	0.2-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	12-18	0-85	0-80	0-27	1.25-1.65	0.2-2	0.11-0.22	0.0-5.9	0.1-3.0	.49	.49
	18-35	0-20	45-80	18-35	1.30-1.65	0.06-2	0.15-0.22	0.0-5.9	0.1-2.0	.49	.49
	35-48	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49
	48-72	0-85	0-80	0-40	1.40-1.65	0.06-2	0.11-0.21	0.0-5.9	0.1-1.0	.49	.49

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
NvB:											
Nicholville----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-6	15-85	0-80	0-17	0.95-1.45	0.6-6	0.12-0.25	0.0-2.9	1.0-10	.49	.49
	6-7	15-85	0-80	0-17	1.20-1.50	0.6-6	0.12-0.24	0.0-2.9	0.5-4.0	.49	.49
	7-12	15-85	0-80	0-17	1.00-1.45	0.6-6	0.12-0.25	0.0-2.9	2.0-8.0	.49	.49
	12-20	15-85	0-80	0-17	1.35-1.60	0.6-6	0.12-0.22	0.0-2.9	0.1-3.0	.49	.49
	20-25	15-85	0-80	0-17	1.35-1.60	0.6-6	0.08-0.21	0.0-2.9	0.1-1.0	.49	.49
	25-38	15-85	0-80	0-17	1.35-1.60	0.6-6	0.08-0.21	0.0-2.9	0.1-1.0	.43	.43
	38-54	15-85	0-80	0-17	1.35-1.60	0.6-6	0.08-0.21	0.0-2.9	0.1-1.0	.43	.43
	54-72	15-85	0-80	0-17	1.35-1.60	0.6-6	0.08-0.21	0.0-2.9	0.1-1.0	.49	.49
OmA:											
Occum----------------	0-9	44-85	0-49	0-17	0.95-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-10	.24	.24
	9-21	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.24	.24
	21-30	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.24	.24
	30-36	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.20	.20
	36-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.05	.05
OwA:											
Ondawa---------------	0-9	33-85	0-50	0-17	0.95-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-10	.24	.24
	9-21	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.24	.24
	21-34	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.24	.24
	34-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.20	.20
Pc:											
Pits, quarry---------	0-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Pd:											
Pits, sand and gravel--------------	0-10	44-100	0-49	0-10	1.50-1.65	2-100	0.02-0.16	0.0-2.9	0.0-3.0	.05	.05
	10-72	86-100	0-14	0-5	1.50-1.60	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.05	.05
PfB:											
Pittsfield-----------	0-8	33-85	0-50	0-17	0.85-1.45	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.24	.28
	8-10	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	10-20	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	20-24	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	24-30	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.28
	30-45	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.17	0.0-2.9	0.1-3.0	.15	.24
	45-59	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.15	.24
	59-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.17	.24

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
PfC:											
Pittsfield----------	0-8	33-85	0-50	0-17	0.85-1.45	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.24	.28
	8-10	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	10-20	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	20-24	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	24-30	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.28
	30-45	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.17	0.0-2.9	0.1-3.0	.15	.24
	45-59	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.15	.24
	59-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.17	.24
PfD:											
Pittsfield----------	0-8	33-85	0-50	0-17	0.85-1.45	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.24	.28
	8-10	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	10-20	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	20-24	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	24-30	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.28
	30-45	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.17	0.0-2.9	0.1-3.0	.15	.24
	45-59	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.15	.24
	59-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.17	.24
PfE:											
Pittsfield----------	0-8	33-85	0-50	0-17	0.85-1.45	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.24	.28
	8-10	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	10-20	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	20-24	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	24-30	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.28
	30-45	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.17	0.0-2.9	0.1-3.0	.15	.24
	45-59	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.15	.24
	59-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.17	.24
PkA:											
Pleasant Lake-------	0-4	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	4-5	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	5-9	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	9-31	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	31-44	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	44-53	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	53-66	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
PlB:											
Pittsfield, rocky, very stony---------	0-8	33-85	0-50	0-17	0.85-1.45	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.24	.28
	8-10	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	10-20	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	20-24	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	24-30	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.28
	30-45	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.17	0.0-2.9	0.1-3.0	.15	.24
	45-59	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.15	.24
	59-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.17	.24

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Chatfield, rocky, very stony---------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-7	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	7-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.24
	19-27	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	27-32	33-85	0-50	0-17	1.45-1.75	0.6-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
	32-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
PlC:											
Pittsfield, rocky, very stony---------	0-8	33-85	0-50	0-17	0.85-1.45	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.24	.28
	8-10	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	10-20	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	20-24	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	24-30	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.28
	30-45	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.17	0.0-2.9	0.1-3.0	.15	.24
	45-59	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.15	.24
	59-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.17	.24
Chatfield, rocky, very stony---------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-7	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	7-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.24
	19-27	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	27-32	33-85	0-50	0-17	1.45-1.75	0.6-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
	32-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
PlD:											
Pittsfield, rocky, very stony---------	0-8	33-85	0-50	0-17	0.85-1.45	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.24	.28
	8-10	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	10-20	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	20-24	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	24-30	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.28
	30-45	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.17	0.0-2.9	0.1-3.0	.15	.24
	45-59	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.15	.24
	59-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.17	.24
Chatfield, rocky, very stony---------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-7	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	7-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.24
	19-27	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	27-32	33-85	0-50	0-17	1.45-1.75	0.6-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
	32-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
PlF:											
Pittsfield, rocky, very stony	0-8	33-85	0-50	0-17	0.85-1.45	0.6-6	0.06-0.24	0.0-2.9	1.0-15	.24	.28
	8-10	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	10-20	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.15	.24
	20-24	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	24-30	33-85	0-50	0-17	1.20-1.55	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.20	.28
	30-45	44-85	0-49	0-17	1.30-1.65	0.6-6	0.04-0.17	0.0-2.9	0.1-3.0	.15	.24
	45-59	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.15	.24
	59-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.04-0.17	0.0-2.9	0.1-1.0	.17	.24
Chatfield, rocky, very stony	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-7	33-85	0-50	0-17	0.85-1.55	0.6-6	0.08-0.24	0.0-2.9	1.0-15	.15	.24
	7-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.10	.24
	19-27	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.17	.24
	27-32	33-85	0-50	0-17	1.45-1.75	0.6-6	0.05-0.17	0.0-2.9	0.1-1.0	.17	.24
	32-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
PoA:											
Podunk	0-7	33-85	0-50	0-17	0.95-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-10	.37	.37
	7-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.37	.37
	11-18	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.24	.24
	18-31	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.20	.20
	31-34	33-100	0-50	0-17	0.95-1.75	2-100	0.02-0.24	0.0-2.9	0.0-10	.37	.37
	34-39	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.37	.37
	39-45	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.24	.24
	45-53	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.05	.05
	53-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.05	.05
PrA:											
Pootatuck	0-5	44-85	0-49	0-17	0.95-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-10	.24	.24
	5-9	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.24	.24
	9-14	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.24	.24
	14-21	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-3.0	.24	.24
	21-32	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.20	.20
	32-47	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.20	.20
	47-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-2.0	.15	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
PtB:											
Pyrities------------	0-4	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.23	0.0-2.9	1.0-15	.24	.24
	4-7	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	7-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	11-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-28	44-85	0-49	0-17	1.30-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-3.0	.15	.24
	28-54	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
	54-72	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
PtC:											
Pyrities------------	0-4	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.23	0.0-2.9	1.0-15	.24	.24
	4-7	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	7-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	11-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-28	44-85	0-49	0-17	1.30-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-3.0	.15	.24
	28-54	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
	54-72	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
PtD:											
Pyrities------------	0-4	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.23	0.0-2.9	1.0-15	.24	.24
	4-7	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	7-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	11-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-28	44-85	0-49	0-17	1.30-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-3.0	.15	.24
	28-54	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
	54-72	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
PuC:											
Pyrities, very stony	0-4	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.23	0.0-2.9	1.0-15	.24	.24
	4-7	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	7-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	11-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-28	44-85	0-49	0-17	1.30-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-3.0	.15	.24
	28-54	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
	54-72	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
PuD:											
Pyrities, very stony	0-4	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.23	0.0-2.9	1.0-15	.24	.24
	4-7	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	7-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	11-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-28	44-85	0-49	0-17	1.30-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-3.0	.15	.24
	28-54	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
	54-72	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
PwC:											
Pyrities, very stony	0-4	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.23	0.0-2.9	1.0-15	.24	.24
	4-7	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	7-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	11-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-28	44-85	0-49	0-17	1.30-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-3.0	.15	.24
	28-54	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
	54-72	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
Nehasne, very stony-	0-6	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.24	0.0-2.9	1.0-15	.24	.24
	6-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-5.0	.20	.24
	13-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-25	44-85	0-49	0-17	1.45-2.20	0.6-6	0.00-0.13	0.0-2.9	0.1-1.0	.15	.20
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
PwD:											
Pyrities, very stony	0-4	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.23	0.0-2.9	1.0-15	.24	.24
	4-7	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	7-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	11-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-28	44-85	0-49	0-17	1.30-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-3.0	.15	.24
	28-54	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
	54-72	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
Nehasne, very stony-	0-6	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.24	0.0-2.9	1.0-15	.24	.24
	6-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-5.0	.20	.24
	13-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-25	44-85	0-49	0-17	1.45-2.20	0.6-6	0.00-0.13	0.0-2.9	0.1-1.0	.15	.20
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
PyC:											
Pyrities------------	0-4	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.23	0.0-2.9	1.0-15	.24	.24
	4-7	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	7-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	11-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-28	44-85	0-49	0-17	1.30-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-3.0	.15	.24
	28-54	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
	54-72	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
Nehasne-------------	0-6	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.24	0.0-2.9	1.0-15	.24	.24
	6-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-5.0	.20	.24
	13-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-25	44-85	0-49	0-17	1.45-2.20	0.6-6	0.00-0.13	0.0-2.9	0.1-1.0	.15	.20
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
PyD:											
Pyrities------------	0-4	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.23	0.0-2.9	1.0-15	.24	.24
	4-7	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	7-11	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	11-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.04-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-28	44-85	0-49	0-17	1.30-1.65	0.6-6	0.03-0.16	0.0-2.9	0.1-3.0	.15	.24
	28-54	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
	54-72	44-85	0-49	0-17	1.45-1.85	0.06-6	0.00-0.15	0.0-2.9	0.1-1.0	.15	.20
Nehasne-------------	0-6	33-85	0-50	0-17	0.85-1.45	0.6-6	0.05-0.24	0.0-2.9	1.0-15	.24	.24
	6-13	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-5.0	.20	.24
	13-20	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-5.0	.20	.24
	20-25	44-85	0-49	0-17	1.45-2.20	0.6-6	0.00-0.13	0.0-2.9	0.1-1.0	.15	.20
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
RaC:											
Rawsonville, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Hogback, very rocky, very bouldery------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	44-91	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	4-6	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	6-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	14-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
RaD:											
Rawsonville, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Hogback, very rocky, very bouldery------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	44-91	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	4-6	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	6-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	14-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
RaF:											
Rawsonville, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-98	---	---
	1-2	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	2-3	33-85	0-50	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	4.0-34	.24	.28
	3-4	44-85	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.20	.24
	4-5	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	5-11	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.20	.24
	11-20	44-85	0-49	0-17	0.60-1.50	0.6-6	0.08-0.30	0.0-2.9	2.0-21	.20	.24
	20-25	44-85	0-49	0-17	0.80-1.60	0.6-6	0.07-0.25	0.0-2.9	0.5-10	.24	.24
	25-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Hogback, very rocky, very bouldery------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-98	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-95	---	---
	3-4	44-91	0-49	0-17	0.80-1.55	0.6-6	0.08-0.25	0.0-2.9	2.0-14	.24	.24
	4-6	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	6-14	44-85	0-49	0-17	0.40-1.25	0.6-6	0.10-0.45	0.0-2.9	10-34	.24	.24
	14-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
RmA:											
Rippowam-----------	0-2	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	2-11	44-85	0-49	0-17	0.75-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-20	.24	.24
	11-21	44-85	0-49	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.0-3.0	.24	.24
	21-29	44-85	0-49	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.0-3.0	.24	.24
	29-36	44-85	0-49	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.0-3.0	.24	.24
	36-43	44-85	0-49	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.0-3.0	.24	.24
	43-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15
RpF:											
Rock outcrop, very bouldery-----------	0-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Knob Lock, very rocky, very bouldery-----------	0-3	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	3-7	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	7-9	44-100	0-49	0-20	0.60-1.50	0.6-100	0.10-0.26	0.0-2.9	2.0-21	.17	.24
	9-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
RsA:											
Roundabout----------	0-11	3-85	0-80	0-17	0.70-1.45	0.6-6	0.12-0.30	0.0-2.9	1.0-20	.49	.49
	11-19	3-85	0-80	0-17	1.30-1.60	0.6-6	0.12-0.22	0.0-2.9	0.1-3.0	.43	.43
	19-28	3-85	0-80	0-17	1.30-1.60	0.6-6	0.12-0.22	0.0-2.9	0.1-3.0	.43	.43
	28-42	3-85	0-80	0-17	1.35-1.60	0.6-6	0.08-0.21	0.0-2.9	0.1-1.0	.43	.43
	42-72	3-85	0-80	0-17	1.35-1.60	0.6-6	0.08-0.21	0.0-2.9	0.1-1.0	.49	.49
RuA:											
Rumney--------------	0-7	33-85	0-50	0-17	0.75-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-20	.28	.28
	7-12	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.24	.24
	12-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.28	.28
	19-30	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.24	.24
	30-33	33-100	0-50	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.24	.24
	33-48	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15
	48-54	3-100	0-80	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.49	.49
	54-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15
RyA:											
Rumney--------------	0-7	33-85	0-50	0-17	0.75-1.55	0.6-6	0.07-0.24	0.0-2.9	1.0-20	.28	.28
	7-12	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.24	.24
	12-19	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.28	.28
	19-30	33-85	0-50	0-17	1.20-1.65	0.6-6	0.06-0.20	0.0-2.9	0.1-5.0	.24	.24
	30-33	33-100	0-50	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.24	.24
	33-48	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15
	48-54	3-100	0-80	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.49	.49
	54-72	44-100	0-49	0-17	1.20-1.75	2-100	0.02-0.20	0.0-2.9	0.0-3.0	.05	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fac Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Burnt Vly----------	0-10	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	10-15	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	15-24	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	24-34	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	34-56	70-100	0-29	0-15	1.35-1.85	0.6-100	0.02-0.10	0.0-2.9	0.1-2.0	.20	.20
	56-72	44-100	0-49	0-20	1.35-1.85	0.6-100	0.02-0.20	0.0-2.9	0.1-2.0	.37	.37
SeA:											
Searsport----------	0-4	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	4-9	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	9-14	70-100	0-29	0-15	0.60-1.40	2-20	0.04-0.30	0.0-2.9	4.0-30	.10	.10
	14-22	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	22-32	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.10	.10
	32-40	70-100	0-29	0-15	1.40-1.75	2-100	0.03-0.10	0.0-2.9	0.1-1.0	.24	.24
	40-48	70-100	0-29	0-15	1.40-1.75	2-100	0.02-0.10	0.0-2.9	0.1-1.0	.24	.24
	48-54	44-100	0-49	0-17	1.40-1.75	0.6-100	0.02-0.16	0.0-2.9	0.1-1.0	.37	.37
	54-72	70-100	0-29	0-15	1.40-1.75	2-100	0.02-0.10	0.0-2.9	0.1-1.0	.10	.10
SkB:											
Skerry-------------	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-4	33-85	0-50	0-17	0.40-1.35	0.6-6	0.10-0.38	0.0-2.9	4.0-30	.17	.24
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.24	0.0-2.9	0.5-4.0	.17	.24
	5-9	44-85	0-49	0-17	0.65-1.40	0.6-6	0.10-0.38	0.0-2.9	4.0-10	.17	.24
	9-15	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.29	0.0-2.9	2.0-8.0	.15	.20
	15-26	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	26-38	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	38-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
SnB:											
Sunapee, very bouldery----------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-4	33-85	0-50	0-17	0.40-1.35	0.6-6	0.07-0.38	0.0-2.9	4.0-30	.20	.24
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.20	.24
	5-7	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.20	.24
	7-14	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	14-19	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.17	.24
	19-31	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	31-72	44-91	0-49	0-17	1.30-1.85	2-20	0.02-0.13	0.0-2.9	0.1-3.0	.10	.15

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
SpB:											
Sunapee-------------	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-4	33-85	0-50	0-17	0.40-1.35	0.6-6	0.07-0.38	0.0-2.9	4.0-30	.20	.24
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.20	.24
	5-7	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.20	.24
	7-14	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	14-19	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.17	.24
	19-31	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	31-72	44-91	0-49	0-17	1.30-1.85	2-20	0.02-0.13	0.0-2.9	0.1-3.0	.10	.15
SrB:											
Skerry, very bouldery-----------	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-4	33-85	0-50	0-17	0.40-1.35	0.6-6	0.10-0.38	0.0-2.9	4.0-30	.17	.24
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.24	0.0-2.9	0.5-4.0	.17	.24
	5-9	44-85	0-49	0-17	0.65-1.40	0.6-6	0.10-0.38	0.0-2.9	4.0-10	.17	.24
	9-15	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.29	0.0-2.9	2.0-8.0	.15	.20
	15-26	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	26-38	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	38-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
SrC:											
Skerry, very bouldery-----------	0-2	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	2-4	33-85	0-50	0-17	0.40-1.35	0.6-6	0.10-0.38	0.0-2.9	4.0-30	.17	.24
	4-5	44-85	0-49	0-17	0.75-1.50	0.6-6	0.08-0.24	0.0-2.9	0.5-4.0	.17	.24
	5-9	44-85	0-49	0-17	0.65-1.40	0.6-6	0.10-0.38	0.0-2.9	4.0-10	.17	.24
	9-15	44-85	0-49	0-17	0.75-1.55	0.6-6	0.08-0.29	0.0-2.9	2.0-8.0	.15	.20
	15-26	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	26-38	44-85	0-49	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-3.0	.15	.20
	38-72	44-91	0-49	0-17	1.75-2.20	0.06-0.6	0.00-0.09	0.0-2.9	0.1-3.0	.05	.15
StA:											
Stafford------------	0-10	44-91	0-49	0-17	0.95-1.65	2-20	0.05-0.20	0.0-2.9	1.0-10	.28	.28
	10-20	70-100	0-29	0-15	1.30-1.75	6-20	0.05-0.11	0.0-2.9	0.1-3.0	.15	.15
	20-32	70-100	0-29	0-15	1.30-1.75	6-20	0.05-0.11	0.0-2.9	0.1-3.0	.15	.15
	32-72	86-100	0-14	0-10	1.40-1.75	6-60	0.04-0.06	0.0-2.9	0.0-1.0	.05	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
SuA:											
Sun------------------	0-3	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	3-11	15-85	0-80	0-17	0.70-1.55	0.6-6	0.05-0.30	0.0-2.9	1.0-20	.28	.32
	11-15	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	15-25	33-85	0-50	0-17	1.20-1.65	0.6-6	0.05-0.19	0.0-2.9	0.1-5.0	.24	.28
	25-40	33-85	0-50	0-17	1.30-1.65	0.6-6	0.05-0.18	0.0-2.9	0.1-3.0	.17	.24
	40-54	33-85	0-50	0-17	1.75-2.20	0.06-0.2	0.00-0.14	0.0-2.9	0.1-1.0	.15	.20
	54-72	33-85	0-50	0-17	1.45-1.75	0.2-6	0.03-0.14	0.0-2.9	0.1-1.0	.15	.20
TaA:											
Tahawus, very bouldery------------	0-2	---	---	---	0.05-0.15	0.2-20	0.30-0.50	---	75-100	---	---
	2-5	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	5-9	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	9-17	44-91	0-49	0-17	1.20-1.75	0.6-6	0.02-0.17	0.0-2.9	0.1-5.0	.15	.20
	17-24	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.05	.15
	24-72	70-100	0-29	0-15	1.35-1.85	2-100	0.02-0.10	0.0-2.9	0.1-2.0	.10	.15
TeA:											
Typic Endoaquolls, very stony----------	0-10	33-55	28-50	7-17	1.25-1.55	0.6-6	0.10-0.20	0.0-2.9	4.0-15	.24	.28
	10-15	33-85	0-50	0-17	1.40-1.65	0.6-6	0.06-0.18	0.0-2.9	0.5-2.0	.28	.28
	15-24	33-85	0-50	0-17	1.40-1.65	0.6-6	0.06-0.18	0.0-2.9	0.5-2.0	.28	.28
	24-72	33-85	0-50	0-17	1.50-1.85	0.2-2	0.06-0.13	0.0-2.9	0.0-0.5	.28	.28
ToA:											
Tonawanda------------	0-9	3-85	0-80	0-17	0.70-1.45	0.6-6	0.12-0.30	0.0-2.9	1.0-20	.49	.49
	9-14	3-85	0-80	0-17	1.30-1.60	0.6-6	0.12-0.22	0.0-2.9	0.1-3.0	.49	.49
	14-22	3-85	0-80	0-17	1.30-1.60	0.6-6	0.12-0.22	0.0-2.9	0.1-3.0	.49	.49
	22-72	3-85	0-80	0-17	1.35-1.60	0.6-6	0.08-0.21	0.0-2.9	0.1-1.0	.49	.49
TuC:											
Tunbridge, very rocky, very bouldery------------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	---	---	---
TuD: Tunbridge, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
TuF: Tunbridge, very rocky, very bouldery-----------	0-1	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	1-3	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	3-4	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	4-7	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	7-13	44-85	0-49	0-17	0.65-1.40	0.6-6	0.07-0.38	0.0-2.9	4.0-10	.17	.24
	13-18	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.17	.24
	18-27	44-85	0-49	0-17	1.20-1.75	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.15	.20
	27-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion fa	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
Lyman, very rocky, very bouldery------	0-0	---	---	---	0.07-0.35	2-20	0.08-0.30	---	50-95	---	---
	0-1	---	---	---	0.10-0.40	2-20	0.20-0.50	---	50-95	---	---
	1-2	---	---	---	0.15-0.70	0.6-6	0.20-0.60	---	34-90	---	---
	2-3	44-91	0-49	0-17	0.75-1.50	0.6-6	0.05-0.24	0.0-2.9	0.5-4.0	.15	.20
	3-9	44-85	0-49	0-17	0.75-1.55	0.6-6	0.05-0.29	0.0-2.9	2.0-8.0	.15	.20
	9-13	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	13-18	44-85	0-49	0-17	1.20-1.65	0.6-6	0.03-0.19	0.0-2.9	0.1-3.0	.10	.20
	18-72	---	---	---	---	0.00-6	0.00-0.00	---	0.0-0.0	---	---
UlC:											
Udorthents----------	0-2	0-85	0-80	0-40	0.75-1.55	0.06-20	0.02-0.28	0.0-5.9	1.0-15	.32	.49
	2-21	0-91	0-73	0-40	1.20-1.75	0.06-20	0.01-0.19	0.0-5.9	0.1-2.0	.24	.49
	21-72	0-91	0-73	0-40	1.20-1.75	0.06-20	0.01-0.19	0.0-5.9	0.1-2.0	.43	.49
UmF:											
Udorthents, mine spoil--------------	0-5	0-85	0-80	0-27	0.80-1.55	0.06-2	0.11-0.28	0.0-2.9	1.0-15	.43	.43
	5-9	0-85	0-80	0-27	1.40-1.65	0.06-2	0.11-0.21	0.0-2.9	0.1-2.0	.43	.43
	9-72	70-100	0-29	0-15	1.35-1.85	20-100	0.01-0.10	0.0-2.9	0.1-2.0	.02	.10
VeB:											
Vergennes----------	0-8	0-45	0-65	27-90	0.75-1.50	0.00-0.6	0.09-0.26	3.0-15.0	1.0-15	.49	.49
	8-10	0-45	0-65	27-90	0.95-1.55	0.00-0.2	0.01-0.20	3.0-15.0	0.1-3.0	.49	.49
	10-22	0-40	0-39	60-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-2.0	.49	.49
	22-29	0-45	0-60	40-90	1.05-1.55	0.00-0.2	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	29-37	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	37-45	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	45-72	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
VeC:											
Vergennes----------	0-8	0-45	0-65	27-90	0.75-1.50	0.00-0.6	0.09-0.26	3.0-15.0	1.0-15	.49	.49
	8-10	0-45	0-65	27-90	0.95-1.55	0.00-0.2	0.01-0.20	3.0-15.0	0.1-3.0	.49	.49
	10-22	0-40	0-39	60-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-2.0	.49	.49
	22-29	0-45	0-60	40-90	1.05-1.55	0.00-0.2	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	29-37	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	37-45	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	45-72	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
VeD:											
Vergennes----------	0-8	0-45	0-65	27-90	0.75-1.50	0.00-0.6	0.09-0.26	3.0-15.0	1.0-15	.49	.49
	8-10	0-45	0-65	27-90	0.95-1.55	0.00-0.2	0.01-0.20	3.0-15.0	0.1-3.0	.49	.49
	10-22	0-40	0-39	60-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-2.0	.49	.49
	22-29	0-45	0-60	40-90	1.05-1.55	0.00-0.2	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	29-37	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	37-45	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	45-72	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac	
										Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
VeE:											
Vergennes	0-8	0-45	0-65	27-90	0.75-1.50	0.00-0.6	0.09-0.26	3.0-15.0	1.0-15	.49	.49
	8-10	0-45	0-65	27-90	0.95-1.55	0.00-0.2	0.01-0.20	3.0-15.0	0.1-3.0	.49	.49
	10-22	0-40	0-39	60-90	1.00-1.55	0.00-0.2	0.01-0.15	3.0-15.0	0.1-2.0	.49	.49
	22-29	0-45	0-60	40-90	1.05-1.55	0.00-0.2	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	29-37	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	37-45	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
	45-72	0-45	0-60	40-90	1.05-1.55	0.00-0.06	0.01-0.17	3.0-15.0	0.1-1.0	.49	.49
W:											
Water	---	---	---	---	---	---	---	---	---	---	---
WeA:											
Wegatchie	0-8	0-23	50-80	0-27	1.00-1.25	0.6-2	0.20-0.35	0.0-5.9	4.0-10	.49	.49
	8-13	0-85	0-80	18-35	1.20-1.40	0.06-2	0.15-0.20	0.0-5.9	0.1-3.0	.49	.49
	13-19	0-85	0-80	18-35	1.20-1.40	0.06-2	0.15-0.20	0.0-5.9	0.1-3.0	.49	.49
	19-40	0-85	0-80	18-35	1.20-1.40	0.06-2	0.15-0.20	0.0-5.9	0.1-3.0	.49	.49
	40-72	0-85	0-80	18-35	1.20-1.55	0.06-2	0.15-0.20	0.0-5.9	0.1-1.0	.49	.49
WlA:											
Whallonsburg	0-2	---	---	---	0.05-0.20	0.2-20	0.30-0.70	---	75-100	---	---
	2-12	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	12-20	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	20-23	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	23-30	0-45	0-73	35-90	0.80-1.55	0.00-0.2	0.09-0.19	3.0-15.0	0.1-10	.49	.49
	30-72	0-45	0-73	35-90	0.80-1.55	0.00-0.2	0.09-0.19	3.0-15.0	0.1-10	.49	.49
WnA:											
Windsor	0-10	70-91	0-29	0-15	0.95-1.65	6-60	0.05-0.14	0.0-2.9	1.0-10	.15	.15
	10-14	70-91	0-29	0-15	1.30-1.75	6-60	0.05-0.11	0.0-2.9	0.1-3.0	.15	.15
	14-19	70-100	0-29	0-15	1.30-1.75	6-60	0.04-0.11	0.0-2.9	0.1-3.0	.05	.05
	19-24	70-100	0-29	0-15	1.40-1.75	6-60	0.04-0.10	0.0-2.9	0.0-1.0	.05	.05
	24-72	86-100	0-14	0-10	1.40-1.75	6-60	0.03-0.06	0.0-2.9	0.0-1.0	.05	.05
WnB:											
Windsor	0-10	70-91	0-29	0-15	0.95-1.65	6-60	0.05-0.14	0.0-2.9	1.0-10	.15	.15
	10-14	70-91	0-29	0-15	1.30-1.75	6-60	0.05-0.11	0.0-2.9	0.1-3.0	.15	.15
	14-19	70-100	0-29	0-15	1.30-1.75	6-60	0.04-0.11	0.0-2.9	0.1-3.0	.05	.05
	19-24	70-100	0-29	0-15	1.40-1.75	6-60	0.04-0.10	0.0-2.9	0.0-1.0	.05	.05
	24-72	86-100	0-14	0-10	1.40-1.75	6-60	0.03-0.06	0.0-2.9	0.0-1.0	.05	.05

Table 20.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion fac[tors] Kw	Kf
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct		
WnC:											
Windsor-------------	0-10	70-91	0-29	0-15	0.95-1.65	6-60	0.05-0.14	0.0-2.9	1.0-10	.15	.15
	10-14	70-91	0-29	0-15	1.30-1.75	6-60	0.05-0.11	0.0-2.9	0.1-3.0	.15	.15
	14-19	70-100	0-29	0-15	1.30-1.75	6-60	0.04-0.11	0.0-2.9	0.1-3.0	.05	.05
	19-24	70-100	0-29	0-15	1.40-1.75	6-60	0.04-0.10	0.0-2.9	0.0-1.0	.05	.05
	24-72	86-100	0-14	0-10	1.40-1.75	6-60	0.03-0.06	0.0-2.9	0.0-1.0	.05	.05
WnD:											
Windsor-------------	0-10	70-91	0-29	0-15	0.95-1.65	6-60	0.05-0.14	0.0-2.9	1.0-10	.15	.15
	10-14	70-91	0-29	0-15	1.30-1.75	6-60	0.05-0.11	0.0-2.9	0.1-3.0	.15	.15
	14-19	70-100	0-29	0-15	1.30-1.75	6-60	0.04-0.11	0.0-2.9	0.1-3.0	.05	.05
	19-24	70-100	0-29	0-15	1.40-1.75	6-60	0.04-0.10	0.0-2.9	0.0-1.0	.05	.05
	24-72	86-100	0-14	0-10	1.40-1.75	6-60	0.03-0.06	0.0-2.9	0.0-1.0	.05	.05
WnE:											
Windsor-------------	0-10	70-91	0-29	0-15	0.95-1.65	6-60	0.05-0.14	0.0-2.9	1.0-10	.15	.15
	10-14	70-91	0-29	0-15	1.30-1.75	6-60	0.05-0.11	0.0-2.9	0.1-3.0	.15	.15
	14-19	70-100	0-29	0-15	1.30-1.75	6-60	0.04-0.11	0.0-2.9	0.1-3.0	.05	.05
	19-24	70-100	0-29	0-15	1.40-1.75	6-60	0.04-0.10	0.0-2.9	0.0-1.0	.05	.05
	24-72	86-100	0-14	0-10	1.40-1.75	6-60	0.03-0.06	0.0-2.9	0.0-1.0	.05	.05
WoA:											
Wonsqueak-----------	0-12	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	12-25	---	---	---	0.10-0.40	0.2-6	0.30-0.70	---	35-95	---	---
	25-29	15-85	0-80	0-27	1.40-1.75	0.2-6	0.05-0.21	0.0-2.9	0.1-1.0	.15	.20
	29-72	15-85	0-80	0-27	1.40-1.75	0.2-6	0.05-0.21	0.0-2.9	0.1-1.0	.32	.32

Table 21.—Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
10A:					
Pleasant Lake--------	0-4	50-200	---	1.8-4.4	0
	4-5	50-200	---	1.8-4.4	0
	5-9	50-200	---	1.8-4.4	0
	9-31	50-200	---	1.8-4.4	0
	31-44	50-200	---	1.8-4.4	0
	44-53	50-200	---	1.8-4.4	0
	53-66	50-200	---	1.8-4.4	0
Burnt Vly------------	0-10	50-200	---	1.8-4.5	0
	10-15	50-200	---	1.8-4.5	0
	15-24	50-200	---	1.8-4.5	0
	24-34	50-200	---	1.8-4.5	0
	34-56	0.0-5.0	---	3.5-6.5	0
	56-72	0.0-5.0	---	3.5-6.5	0
13A:					
Burnt Vly------------	0-10	50-200	---	1.8-4.5	0
	10-15	50-200	---	1.8-4.5	0
	15-24	50-200	---	1.8-4.5	0
	24-34	50-200	---	1.8-4.5	0
	34-56	0.0-5.0	---	3.5-6.5	0
	56-72	0.0-5.0	---	3.5-6.5	0
Rumney---------------	0-7	3.0-25	---	4.5-7.3	0
	7-12	1.0-15	---	4.5-7.3	0
	12-19	1.0-15	---	4.5-7.3	0
	19-30	1.0-15	---	4.5-7.3	0
	30-33	1.0-10	---	4.5-7.3	0
	33-48	1.0-10	---	4.5-7.3	0
	48-54	1.0-10	---	4.5-7.3	0
	54-72	1.0-10	---	4.5-7.3	0
Pleasant Lake--------	0-4	50-200	---	1.8-4.4	0
	4-5	50-200	---	1.8-4.4	0
	5-9	50-200	---	1.8-4.4	0
	9-31	50-200	---	1.8-4.4	0
	31-44	50-200	---	1.8-4.4	0
	44-53	50-200	---	1.8-4.4	0
	53-66	50-200	---	1.8-4.4	0
29C:					
Burnt Vly------------	0-10	50-200	---	1.8-4.5	0
	10-15	50-200	---	1.8-4.5	0
	15-24	50-200	---	1.8-4.5	0
	24-34	50-200	---	1.8-4.5	0
	34-56	0.0-5.0	---	3.5-6.5	0
	56-72	0.0-5.0	---	3.5-6.5	0
Colton---------------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Rumney---------------	0-7	3.0-25	---	4.5-7.3	0
	7-12	1.0-15	---	4.5-7.3	0
	12-19	1.0-15	---	4.5-7.3	0
	19-30	1.0-15	---	4.5-7.3	0
	30-33	1.0-10	---	4.5-7.3	0
	33-48	1.0-10	---	4.5-7.3	0
	48-54	1.0-10	---	4.5-7.3	0
	54-72	1.0-10	---	4.5-7.3	0
113A:					
Ondawa---------------	0-9	3.0-25	---	4.5-6.5	0
	9-21	1.0-15	---	4.5-6.5	0
	21-34	1.0-15	---	4.5-6.5	0
	34-72	1.0-10	---	4.5-6.5	0
Rumney---------------	0-7	3.0-25	---	4.5-7.3	0
	7-12	1.0-15	---	4.5-7.3	0
	12-19	1.0-15	---	4.5-7.3	0
	19-30	1.0-15	---	4.5-7.3	0
	30-33	1.0-10	---	4.5-7.3	0
	33-48	1.0-10	---	4.5-7.3	0
	48-54	1.0-10	---	4.5-7.3	0
	54-72	1.0-10	---	4.5-7.3	0
123A:					
Lovewell-------------	0-11	4.0-11	---	4.5-6.5	0
	11-20	1.0-5.0	---	4.5-6.5	0
	20-30	1.0-5.0	---	4.5-6.5	0
	30-50	1.0-3.0	---	4.5-6.5	0
	50-56	1.0-2.0	---	4.5-6.5	0
	56-75	1.0-2.0	---	4.5-6.5	0
Cornish--------------	0-12	3.0-25	---	4.5-6.5	0
	12-21	1.0-15	---	4.5-6.5	0
	21-35	1.0-10	---	4.5-6.5	0
	35-42	1.0-10	---	4.5-6.5	0
	42-48	1.0-10	---	4.5-6.5	0
	48-53	1.0-10	---	4.5-6.5	0
	53-72	1.0-10	---	4.5-6.5	0
350B:					
Duxbury, very stony--	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.5-30	3.5-6.5	0
	4-5	---	0.1-15	3.5-6.5	0
	5-13	5.0-40	---	3.5-6.5	0
	13-21	1.0-30	---	3.5-6.5	0
	21-31	0.0-5.0	---	4.5-6.5	0
	31-36	0.0-5.0	---	4.5-6.5	0
	36-72	0.0-5.0	---	4.5-6.5	0
363A:					
Adams----------------	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
363B:					
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
363D:					
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
363F:					
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
365A:					
Naumburg	0-2	10-190	---	1.8-4.4	0
	2-7	---	0.1-10	3.5-5.5	0
	7-10	---	0.1-20	3.5-5.5	0
	10-18	---	0.0-10	3.5-5.5	0
	18-31	---	0.0-5.0	3.5-5.5	0
	31-54	---	0.0-5.0	4.5-6.5	0
	54-72	---	0.0-5.0	4.5-6.5	0
Croghan	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-20	3.5-6.0	0
	3-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	---	0.0-5.0	4.5-6.0	0
	23-29	0.0-5.0	---	4.5-6.0	0
	29-42	0.0-5.0	---	4.5-6.0	0
	42-45	0.0-5.0	---	4.5-6.0	0
	45-72	0.0-5.0	---	4.5-6.0	0
367A:					
Searsport	0-4	50-200	---	3.5-6.5	0
	4-9	50-200	---	3.5-6.5	0
	9-14	---	0.1-15	3.5-6.5	0
	14-22	0.0-5.0	---	4.5-6.5	0
	22-32	0.0-5.0	---	4.5-6.5	0
	32-40	0.0-5.0	---	4.5-6.5	0
	40-48	0.0-5.0	---	4.5-6.5	0
	48-54	0.0-5.0	---	4.5-6.5	0
	54-72	0.0-5.0	---	4.5-6.5	0
Haplosaprists	0-10	50-200	---	1.8-4.5	0
	10-20	50-200	---	1.8-4.5	0
	20-72	0.0-5.0	---	4.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Naumburg	0-2	10-190	---	1.8-4.4	0
	2-7	---	0.1-10	3.5-5.5	0
	7-10	---	0.1-20	3.5-5.5	0
	10-18	---	0.0-10	3.5-5.5	0
	18-31	---	0.0-5.0	3.5-5.5	0
	31-54	---	0.0-5.0	4.5-6.5	0
	54-72	---	0.0-5.0	4.5-6.5	0
375A:					
Colton	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
375C:					
Colton	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
375D:					
Colton	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
375F:					
Colton	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
649C:					
Monadnock, rocky, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
Tunbridge, rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
Tahawus, very bouldery	0-2	50-200	---	3.5-5.5	0
	2-5	50-200	---	3.5-5.5	0
	5-9	50-200	---	3.5-5.5	0
	9-17	1.0-20	---	4.5-6.5	0
	17-24	0.1-15	---	5.6-7.3	0
	24-72	0.1-15	---	5.6-7.3	0
650C:					
Monadnock, bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Colton---------------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
650D:					
Monadnock, bouldery--	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
Adams----------------	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
Colton---------------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
651D:					
Monadnock, rocky,	0-2	10-190	---	1.8-4.4	0
very bouldery-------					
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
Tunbridge, rocky,	0-1	10-190	---	1.8-4.4	0
very bouldery-------					
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
653C:					
Monadnock, very	0-2	10-190	---	1.8-4.4	0
bouldery------------					
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
653D:					
Monadnock, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
655B:					
Sunapee, very bouldery------------	0-1	10-190	---	1.8-4.4	0
	1-4	---	0.5-30	3.5-5.5	0
	4-5	---	0.1-15	3.5-5.5	0
	5-7	---	0.5-15	3.5-5.5	0
	7-14	---	0.5-15	3.5-5.5	0
	14-19	---	0.1-10	3.5-5.5	0
	19-31	---	0.1-10	3.5-5.5	0
	31-72	---	0.1-10	3.5-6.0	0
Monadnock, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
657C:					
Monadnock, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
Tahawus, very bouldery------------	0-2	50-200	---	3.5-5.5	0
	2-5	50-200	---	3.5-5.5	0
	5-9	50-200	---	3.5-5.5	0
	9-17	1.0-20	---	4.5-6.5	0
	17-24	0.1-15	---	5.6-7.3	0
	24-72	0.1-15	---	5.6-7.3	0
657D:					
Monadnock, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Tahawus, very bouldery------------	0-2	50-200	---	3.5-5.5	0
	2-5	50-200	---	3.5-5.5	0
	5-9	50-200	---	3.5-5.5	0
	9-17	1.0-20	---	4.5-6.5	0
	17-24	0.1-15	---	5.6-7.3	0
	24-72	0.1-15	---	5.6-7.3	0
661C:					
Hermon, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-5	---	0.1-15	3.5-5.5	0
	5-10	---	0.5-30	3.5-6.0	0
	10-20	---	0.5-15	3.5-6.0	0
	20-29	---	0.0-5.0	5.1-6.0	0
	29-38	---	0.0-5.0	5.1-6.0	0
	38-72	---	0.0-5.0	5.1-6.0	0
661D:					
Hermon, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-5	---	0.1-15	3.5-5.5	0
	5-10	---	0.5-30	3.5-6.0	0
	10-20	---	0.5-15	3.5-6.0	0
	20-29	---	0.0-5.0	5.1-6.0	0
	29-38	---	0.0-5.0	5.1-6.0	0
	38-72	---	0.0-5.0	5.1-6.0	0
661F:					
Hermon, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-5	---	0.1-15	3.5-5.5	0
	5-10	---	0.5-30	3.5-6.0	0
	10-20	---	0.5-15	3.5-6.0	0
	20-29	---	0.0-5.0	5.1-6.0	0
	29-38	---	0.0-5.0	5.1-6.0	0
	38-72	---	0.0-5.0	5.1-6.0	0
705B:					
Adirondack, very bouldery------------	0-2	10-190	---	3.5-5.0	0
	2-4	10-190	---	3.5-5.0	0
	4-6	---	15-40	3.5-5.5	0
	6-8	---	20-60	3.5-5.5	0
	8-9	---	20-60	3.5-5.5	0
	9-18	---	20-60	3.5-5.5	0
	18-26	---	20-60	4.5-6.0	0
	26-34	5.0-15	---	5.1-6.0	0
	34-43	5.0-15	---	5.1-6.0	0
	43-72	5.0-15	---	5.1-6.0	0
Tahawus, very bouldery------------	0-2	50-200	---	3.5-5.5	0
	2-5	50-200	---	3.5-5.5	0
	5-9	50-200	---	3.5-5.5	0
	9-17	1.0-20	---	4.5-6.5	0
	17-24	0.1-15	---	5.6-7.3	0
	24-72	0.1-15	---	5.6-7.3	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
721C:					
Becket, rocky, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
Tunbridge, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
Skerry, rocky, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.5-30	3.5-6.5	0
	4-5	---	0.1-15	3.5-6.5	0
	5-9	---	0.5-30	3.5-6.5	0
	9-15	---	0.5-15	3.5-6.5	0
	15-26	1.0-20	---	3.5-6.5	0
	26-38	1.0-20	---	3.5-6.5	0
	38-72	0.1-15	---	4.5-7.3	0
721D:					
Becket, rocky, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
Tunbridge, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
721F:					
Becket, rocky, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Tunbridge, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
723C:					
Becket, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
723D:					
Becket, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
723F:					
Becket, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
725B:					
Skerry, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.5-30	3.5-6.5	0
	4-5	---	0.1-15	3.5-6.5	0
	5-9	---	0.5-30	3.5-6.5	0
	9-15	---	0.5-15	3.5-6.5	0
	15-26	1.0-20	---	3.5-6.5	0
	26-38	1.0-20	---	3.5-6.5	0
	38-72	0.1-15	---	4.5-7.3	0
Becket, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
727B:					
Skerry, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.5-30	3.5-6.5	0
	4-5	---	0.1-15	3.5-6.5	0
	5-9	---	0.5-30	3.5-6.5	0
	9-15	---	0.5-15	3.5-6.5	0
	15-26	1.0-20	---	3.5-6.5	0
	26-38	1.0-20	---	3.5-6.5	0
	38-72	0.1-15	---	4.5-7.3	0
Adirondack, very bouldery------------	0-2	10-190	---	3.5-5.0	0
	2-4	10-190	---	3.5-5.0	0
	4-6	---	15-40	3.5-5.5	0
	6-8	---	20-60	3.5-5.5	0
	8-9	---	20-60	3.5-5.5	0
	9-18	---	20-60	3.5-5.5	0
	18-26	---	20-60	4.5-6.0	0
	26-34	5.0-15	---	5.1-6.0	0
	34-43	5.0-15	---	5.1-6.0	0
	43-72	5.0-15	---	5.1-6.0	0
831C:					
Tunbridge, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0
831D:					
Tunbridge, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
831F:					
Tunbridge, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0
833C:					
Tunbridge, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
Adirondack, very rocky, very bouldery	0-2	10-190	---	3.5-5.0	0
	2-4	10-190	---	3.5-5.0	0
	4-6	---	15-40	3.5-5.5	0
	6-8	---	20-60	3.5-5.5	0
	8-9	---	20-60	3.5-5.5	0
	9-18	---	20-60	3.5-5.5	0
	18-26	---	20-60	4.5-6.0	0
	26-34	5.0-15	---	5.1-6.0	0
	34-43	5.0-15	---	5.1-6.0	0
	43-72	5.0-15	---	5.1-6.0	0
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0
851D:					
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Knob Lock, very rocky, very bouldery	0-3	10-190	---	1.8-4.4	0
	3-7	10-190	---	1.8-4.4	0
	7-9	---	0.5-15	3.5-5.0	0
	9-72	---	---	---	0
851F:					
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0
Knob Lock, very rocky, very bouldery	0-3	10-190	---	1.8-4.4	0
	3-7	10-190	---	1.8-4.4	0
	7-9	---	0.5-15	3.5-5.0	0
	9-72	---	---	---	0
881F:					
Rock Outcrop, very bouldery------------	0-72	---	---	---	0
Knob Lock, very rocky, very bouldery	0-3	10-190	---	1.8-4.4	0
	3-7	10-190	---	1.8-4.4	0
	7-9	---	0.5-15	3.5-5.0	0
	9-72	---	---	---	0
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0
930C:					
Mundalite, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-15	3.5-6.0	0
	3-5	---	0.5-30	3.5-6.0	0
	5-14	---	0.5-15	3.5-6.0	0
	14-27	---	0.5-15	3.5-6.0	0
	27-37	---	0.1-10	4.5-6.5	0
	37-72	---	0.1-10	4.5-6.5	0
Rawsonville, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Ampersand, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-15	3.5-5.5	0
	5-13	---	0.5-30	3.5-5.5	0
	13-19	---	0.5-15	3.5-5.5	0
	19-24	---	0.1-10	4.5-6.0	0
	24-32	---	0.1-10	4.5-6.0	0
	32-72	0.2-2.0	---	4.5-6.0	0
931D:					
Mundalite, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-15	3.5-6.0	0
	3-5	---	0.5-30	3.5-6.0	0
	5-14	---	0.5-15	3.5-6.0	0
	14-27	---	0.5-15	3.5-6.0	0
	27-37	---	0.1-10	4.5-6.5	0
	37-72	---	0.1-10	4.5-6.5	0
Rawsonville, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0
931F:					
Mundalite, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-15	3.5-6.0	0
	3-5	---	0.5-30	3.5-6.0	0
	5-14	---	0.5-15	3.5-6.0	0
	14-27	---	0.5-15	3.5-6.0	0
	27-37	---	0.1-10	4.5-6.5	0
	37-72	---	0.1-10	4.5-6.5	0
Rawsonville, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0
932C:					
Mundalite, very bouldery------------	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-15	3.5-6.0	0
	3-5	---	0.5-30	3.5-6.0	0
	5-14	---	0.5-15	3.5-6.0	0
	14-27	---	0.5-15	3.5-6.0	0
	27-37	---	0.1-10	4.5-6.5	0
	37-72	---	0.1-10	4.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Ampersand, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-15	3.5-5.5	0
	5-13	---	0.5-30	3.5-5.5	0
	13-19	---	0.5-15	3.5-5.5	0
	19-24	---	0.1-10	4.5-6.0	0
	24-32	---	0.1-10	4.5-6.0	0
	32-72	0.2-2.0	---	4.5-6.0	0
932D:					
Mundalite, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-15	3.5-6.0	0
	3-5	---	0.5-30	3.5-6.0	0
	5-14	---	0.5-15	3.5-6.0	0
	14-27	---	0.5-15	3.5-6.0	0
	27-37	---	0.1-10	4.5-6.5	0
	37-72	---	0.1-10	4.5-6.5	0
Ampersand, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-15	3.5-5.5	0
	5-13	---	0.5-30	3.5-5.5	0
	13-19	---	0.5-15	3.5-5.5	0
	19-24	---	0.1-10	4.5-6.0	0
	24-32	---	0.1-10	4.5-6.0	0
	32-72	0.2-2.0	---	4.5-6.0	0
934C:					
Ampersand, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-15	3.5-5.5	0
	5-13	---	0.5-30	3.5-5.5	0
	13-19	---	0.5-15	3.5-5.5	0
	19-24	---	0.1-10	4.5-6.0	0
	24-32	---	0.1-10	4.5-6.0	0
	32-72	0.2-2.0	---	4.5-6.0	0
Wilmington, very bouldery	0-3	50-200	---	1.8-4.4	0
	3-5	50-200	---	1.8-4.4	0
	5-7	50-200	---	1.8-4.4	0
	7-9	---	0.1-15	3.5-6.0	0
	9-14	---	0.5-30	3.5-6.0	0
	14-19	---	0.5-30	3.5-6.0	0
	19-72	---	0.1-10	5.1-6.5	0
941C:					
Rawsonville, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Hogback, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-5.5	0
	4-6	---	0.5-30	3.5-5.5	0
	6-14	---	0.5-30	3.5-5.5	0
	14-72	---	---	---	0
941D:					
Rawsonville, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0
Hogback, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-5.5	0
	4-6	---	0.5-30	3.5-5.5	0
	6-14	---	0.5-30	3.5-5.5	0
	14-72	---	---	---	0
941F:					
Rawsonville, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0
Hogback, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-5.5	0
	4-6	---	0.5-30	3.5-5.5	0
	6-14	---	0.5-30	3.5-5.5	0
	14-72	---	---	---	0
944D:					
Hogback, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-5.5	0
	4-6	---	0.5-30	3.5-5.5	0
	6-14	---	0.5-30	3.5-5.5	0
	14-72	---	---	---	0
Knob Lock, very rocky, very bouldery	0-3	10-190	---	1.8-4.4	0
	3-7	10-190	---	1.8-4.4	0
	7-9	---	0.5-15	3.5-5.0	0
	9-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
944F:					
Hogback, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-5.5	0
	4-6	---	0.5-30	3.5-5.5	0
	6-14	---	0.5-30	3.5-5.5	0
	14-72	---	---	---	0
Knob Lock, very rocky, very bouldery	0-3	10-190	---	1.8-4.4	0
	3-7	10-190	---	1.8-4.4	0
	7-9	---	0.5-15	3.5-5.0	0
	9-72	---	---	---	0
948F:					
Rock Outcrop, very bouldery------------	0-72	---	---	---	0
Knob Lock, very bouldery------------	0-3	10-190	---	1.8-4.4	0
	3-7	10-190	---	1.8-4.4	0
	7-9	---	0.5-15	3.5-5.0	0
	9-72	---	---	---	0
Hogback, very bouldery------------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-5.5	0
	4-6	---	0.5-30	3.5-5.5	0
	6-14	---	0.5-30	3.5-5.5	0
	14-72	---	---	---	0
971D:					
Esther, rocky, very bouldery------------	0-1	10-190	---	1.8-4.4	0
	1-4	10-190	---	1.8-4.4	0
	4-8	10-190	---	1.8-4.4	0
	8-10	---	0.1-15	1.8-5.0	0
	10-22	---	0.5-30	3.5-5.5	0
	22-28	---	0.5-30	3.5-5.5	0
	28-33	---	0.1-10	3.5-5.5	0
	33-72	---	0.1-10	3.5-5.5	0
Wallface, rocky, very bouldery------------	0-4	10-190	---	1.8-4.4	0
	4-9	10-190	---	1.8-4.4	0
	9-10	---	0.1-15	1.8-5.0	0
	10-18	---	0.5-30	3.5-5.5	0
	18-25	---	0.5-30	3.5-5.5	0
	25-35	---	0.5-30	3.5-5.5	0
	35-38	---	0.1-10	3.5-5.5	0
	38-72	---	---	---	0
975C:					
Andic Cryaquods, very bouldery------------	0-7	10-190	---	1.8-4.4	0
	7-11	10-190	---	1.8-4.4	0
	11-13	---	0.5-30	3.5-5.5	0
	13-24	---	0.5-30	3.5-5.5	0
	24-36	---	0.5-30	3.5-5.5	0
	36-72	---	0.1-10	3.5-5.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Esther, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-4	10-190	---	1.8-4.4	0
	4-8	10-190	---	1.8-4.4	0
	8-10	---	0.1-15	1.8-5.0	0
	10-22	---	0.5-30	3.5-5.5	0
	22-28	---	0.5-30	3.5-5.5	0
	28-33	---	0.1-10	3.5-5.5	0
	33-72	---	0.1-10	3.5-5.5	0
975D:					
Esther, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-4	10-190	---	1.8-4.4	0
	4-8	10-190	---	1.8-4.4	0
	8-10	---	0.1-15	1.8-5.0	0
	10-22	---	0.5-30	3.5-5.5	0
	22-28	---	0.5-30	3.5-5.5	0
	28-33	---	0.1-10	3.5-5.5	0
	33-72	---	0.1-10	3.5-5.5	0
Andic Cryaquods, very bouldery------------	0-7	10-190	---	1.8-4.4	0
	7-11	10-190	---	1.8-4.4	0
	11-13	---	0.5-30	3.5-5.5	0
	13-24	---	0.5-30	3.5-5.5	0
	24-36	---	0.5-30	3.5-5.5	0
	36-72	---	0.1-10	3.5-5.5	0
992D:					
Wallface, very rocky, very bouldery-------	0-4	10-190	---	1.8-4.4	0
	4-9	10-190	---	1.8-4.4	0
	9-10	---	0.1-15	1.8-5.0	0
	10-18	---	0.5-30	3.5-5.5	0
	18-25	---	0.5-30	3.5-5.5	0
	25-35	---	0.5-30	3.5-5.5	0
	35-38	---	0.1-10	3.5-5.5	0
	38-72	---	---	---	0
Skylight, very rocky, very bouldery-------	0-2	10-190	---	1.8-4.4	0
	2-5	10-190	---	1.8-4.4	0
	5-9	---	0.1-15	1.8-5.0	0
	9-15	---	0.5-30	3.5-5.5	0
	15-72	---	---	---	0
993F:					
Santanoni, very rocky, very bouldery	0-2	0.0-190	---	1.8-4.4	0
	2-3	---	0.1-15	1.8-5.0	0
	3-7	---	0.5-30	3.5-5.5	0
	7-14	---	0.5-30	3.5-5.5	0
	14-31	---	0.5-15	3.5-5.5	0
	31-39	---	0.1-10	3.5-5.5	0
	39-72	---	---	---	0
Skylight, very rocky, very bouldery-------	0-2	10-190	---	1.8-4.4	0
	2-5	10-190	---	1.8-4.4	0
	5-9	---	---	1.8-5.0	0
	9-15	---	---	3.5-5.5	0
	15-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
995D:					
Ricker, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-6	10-190	---	1.8-4.4	0
	6-11	10-190	---	1.8-4.4	0
	11-72	---	---	---	0
Couchsachraga, very rocky, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-9	---	0.5-30	3.5-5.5	0
	9-72	---	---	---	0
Skylight, very rocky, very bouldery-------	0-2	10-190	---	1.8-4.4	0
	2-5	10-190	---	1.8-4.4	0
	5-9	---	0.1-15	1.8-5.0	0
	9-15	---	0.5-30	3.5-5.5	0
	15-72	---	---	---	0
995F:					
Ricker, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-6	10-190	---	1.8-4.4	0
	6-11	10-190	---	1.8-4.4	0
	11-72	---	---	---	0
Couchsachraga, very rocky, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-9	---	0.5-30	3.5-5.5	0
	9-72	---	---	---	0
Skylight, very rocky, very bouldery-------	0-2	10-190	---	1.8-4.4	0
	2-5	10-190	---	1.8-4.4	0
	5-9	---	0.1-15	1.8-5.0	0
	9-15	---	0.5-30	3.5-5.5	0
	15-72	---	---	---	0
998F:					
Rock Outcrop, very bouldery------------	0-72	---	---	---	0
Ricker, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-6	10-190	---	1.8-4.4	0
	6-11	10-190	---	1.8-4.4	0
	11-72	---	---	---	0
Skylight, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-5	10-190	---	1.8-4.4	0
	5-9	---	0.1-15	1.8-5.0	0
	9-15	---	0.5-30	3.5-5.5	0
	15-72	---	---	---	0
AdA:					
Adams----------------	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
AdB:					
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
AdC:					
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
AdD:					
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
AdE:					
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
AkA:					
Adirondack, very bouldery	0-2	10-190	---	3.5-5.0	0
	2-4	10-190	---	3.5-5.0	0
	4-6	---	15-40	3.5-5.5	0
	6-8	---	20-60	3.5-5.5	0
	8-9	---	20-60	3.5-5.5	0
	9-18	---	20-60	3.5-5.5	0
	18-26	---	20-60	4.5-6.0	0
	26-34	5.0-15	---	5.1-6.0	0
	34-43	5.0-15	---	5.1-6.0	0
	43-72	5.0-15	---	5.1-6.0	0
AkB:					
Adirondack, very bouldery	0-2	10-190	---	3.5-5.0	0
	2-4	10-190	---	3.5-5.0	0
	4-6	---	15-40	3.5-5.5	0
	6-8	---	20-60	3.5-5.5	0
	8-9	---	20-60	3.5-5.5	0
	9-18	---	20-60	3.5-5.5	0
	18-26	---	20-60	4.5-6.0	0
	26-34	5.0-15	---	5.1-6.0	0
	34-43	5.0-15	---	5.1-6.0	0
	43-72	5.0-15	---	5.1-6.0	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
AmB:					
Amenia	0-9	5.0-25	---	5.6-7.8	0
	9-14	3.0-20	---	5.6-7.8	0
	14-21	3.0-20	---	5.6-7.8	0
	21-36	1.0-10	---	7.4-9.0	3-25
	36-48	1.0-10	---	7.4-9.0	3-25
	48-72	1.0-10	---	7.4-9.0	3-25
AmC:					
Amenia	0-9	5.0-25	---	5.6-7.8	0
	9-14	3.0-20	---	5.6-7.8	0
	14-21	3.0-20	---	5.6-7.8	0
	21-36	1.0-10	---	7.4-9.0	3-25
	36-48	1.0-10	---	7.4-9.0	3-25
	48-72	1.0-10	---	7.4-9.0	3-25
BcB:					
Becket	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
BcC:					
Becket	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
BeB:					
Becket, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
BeC:					
Becket, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
BeD:					
Becket, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
BeF:					
Becket, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
BkC:					
Becket, rocky, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
Tunbridge, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
BkD:					
Becket, rocky, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.5	0
	3-5	---	0.5-30	3.5-6.5	0
	5-9	---	0.5-15	3.5-6.5	0
	9-18	---	0.1-10	3.5-6.5	0
	18-33	---	0.1-10	3.5-6.5	0
	33-47	---	0.1-10	4.5-7.3	0
	47-72	---	0.1-10	4.5-7.3	0
Tunbridge, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
BoB:					
Bombay---------------	0-10	5.0-25	---	5.1-6.5	0
	10-18	3.0-25	---	5.1-7.3	0
	18-25	3.0-25	---	5.1-7.3	0
	25-36	3.0-20	---	5.6-7.8	0-5
	36-72	1.0-10	---	6.6-8.4	3-25

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
BuA:					
Bucksport	0-7	50-200	20-50	3.6-5.5	0
	7-31	50-200	20-50	3.6-6.0	0
	31-47	50-200	20-50	3.6-6.0	0
	47-72	50-200	---	4.5-6.5	0
BvA:					
Burnt Vly	0-10	50-200	---	1.8-4.5	0
	10-15	50-200	---	1.8-4.5	0
	15-24	50-200	---	1.8-4.5	0
	24-34	50-200	---	1.8-4.5	0
	34-56	0.0-5.0	---	3.5-6.5	0
	56-72	0.0-5.0	---	3.5-6.5	0
CaA:					
Catden	0-3	50-200	---	4.5-7.3	0
	3-6	50-200	---	4.5-7.3	0
	6-37	50-200	---	4.5-7.3	0
	37-46	50-200	---	4.5-7.3	0
	46-71	50-200	---	4.5-7.3	0
	71-80	50-200	---	4.5-7.3	0
CbA:					
Colton, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
CbB:					
Colton, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
CbC:					
Colton, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
CbD:					
Colton, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
CgB:					
Cayuga	0-8	10-40	---	5.6-7.3	0
	8-14	10-40	---	5.6-7.3	0
	14-19	15-45	---	5.6-7.8	0
	19-24	15-45	---	5.6-7.8	0
	24-28	10-35	---	6.1-8.4	0-15
	28-72	1.0-10	---	6.6-8.4	3-25
CgC:					
Cayuga	0-8	10-40	---	5.6-7.3	0
	8-14	10-40	---	5.6-7.3	0
	14-19	15-45	---	5.6-7.8	0
	19-24	15-45	---	5.6-7.8	0
	24-28	10-35	---	6.1-8.4	0-15
	28-72	1.0-10	---	6.6-8.4	3-25
ChB:					
Champlain	0-7	2.0-15	---	5.1-6.5	0
	7-10	2.0-15	---	5.1-6.5	0
	10-16	1.0-10	---	5.1-6.5	0
	16-24	1.0-10	---	5.1-6.5	0
	24-35	1.0-10	---	5.6-7.3	0
	35-50	0.0-5.0	---	5.6-7.3	0
	50-72	0.0-5.0	---	5.6-7.3	0
ChC:					
Champlain	0-7	2.0-15	---	5.1-6.5	0
	7-10	2.0-15	---	5.1-6.5	0
	10-16	1.0-10	---	5.1-6.5	0
	16-24	1.0-10	---	5.1-6.5	0
	24-35	1.0-10	---	5.6-7.3	0
	35-50	0.0-5.0	---	5.6-7.3	0
	50-72	0.0-5.0	---	5.6-7.3	0
ChD:					
Champlain	0-7	2.0-15	---	5.1-6.5	0
	7-10	2.0-15	---	5.1-6.5	0
	10-16	1.0-10	---	5.1-6.5	0
	16-24	1.0-10	---	5.1-6.5	0
	24-35	1.0-10	---	5.6-7.3	0
	35-50	0.0-5.0	---	5.6-7.3	0
	50-72	0.0-5.0	---	5.6-7.3	0
ChE:					
Champlain	0-7	2.0-15	---	5.1-6.5	0
	7-10	2.0-15	---	5.1-6.5	0
	10-16	1.0-10	---	5.1-6.5	0
	16-24	1.0-10	---	5.1-6.5	0
	24-35	1.0-10	---	5.6-7.3	0
	35-50	0.0-5.0	---	5.6-7.3	0
	50-72	0.0-5.0	---	5.6-7.3	0
CkA:					
Charles	0-9	---	1.0-10	3.5-6.5	0
	9-16	---	1.0-10	3.5-6.5	0
	16-28	---	0.1-5.0	3.5-6.5	0
	28-38	---	0.1-5.0	3.5-6.5	0
	38-46	1.0-10	---	3.5-6.5	0
	46-52	1.0-10	---	3.5-6.5	0
	52-72	1.0-10	---	3.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
ClB:					
Charlton	0-5	5.0-25	---	4.5-6.0	0
	5-11	1.0-15	---	4.5-6.0	0
	11-19	1.0-15	---	4.5-6.0	0
	19-36	1.0-15	---	4.5-6.0	0
	36-45	1.0-10	---	4.5-6.0	0
	45-72	1.0-10	---	4.5-6.0	0
ClC:					
Charlton	0-5	5.0-25	---	4.5-6.0	0
	5-11	1.0-15	---	4.5-6.0	0
	11-19	1.0-15	---	4.5-6.0	0
	19-36	1.0-15	---	4.5-6.0	0
	36-45	1.0-10	---	4.5-6.0	0
	45-72	1.0-10	---	4.5-6.0	0
ClD:					
Charlton	0-5	5.0-25	---	4.5-6.0	0
	5-11	1.0-15	---	4.5-6.0	0
	11-19	1.0-15	---	4.5-6.0	0
	19-36	1.0-15	---	4.5-6.0	0
	36-45	1.0-10	---	4.5-6.0	0
	45-72	1.0-10	---	4.5-6.0	0
CnC:					
Charlton, rocky, very stony	0-5	5.0-25	---	4.5-6.0	0
	5-11	1.0-15	---	4.5-6.0	0
	11-19	1.0-15	---	4.5-6.0	0
	19-36	1.0-15	---	4.5-6.0	0
	36-45	1.0-10	---	4.5-6.0	0
	45-72	1.0-10	---	4.5-6.0	0
Chatfield, rocky, very stony	0-1	10-190	---	1.8-4.4	0
	1-7	---	1.0-10	4.5-6.0	0
	7-19	1.0-15	---	4.5-6.0	0
	19-27	1.0-15	---	4.5-6.0	0
	27-32	1.0-10	---	4.5-6.0	0
	32-72	---	---	---	0
CnD:					
Charlton, rocky, very stony	0-5	5.0-25	---	4.5-6.0	0
	5-11	1.0-15	---	4.5-6.0	0
	11-19	1.0-15	---	4.5-6.0	0
	19-36	1.0-15	---	4.5-6.0	0
	36-45	1.0-10	---	4.5-6.0	0
	45-72	1.0-10	---	4.5-6.0	0
Chatfield, rocky, very stony	0-1	10-190	---	1.8-4.4	0
	1-7	---	1.0-10	4.5-6.0	0
	7-19	1.0-15	---	4.5-6.0	0
	19-27	1.0-15	---	4.5-6.0	0
	27-32	1.0-10	---	4.5-6.0	0
	32-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
CoB:					
Chatfield, very rocky, very stony---	0-1	10-190	---	1.8-4.4	0
	1-7	---	1.0-10	4.5-6.0	0
	7-19	1.0-15	---	4.5-6.0	0
	19-27	1.0-15	---	4.5-6.0	0
	27-32	1.0-10	---	4.5-6.0	0
	32-72	---	---	---	0
Hollis, very rocky, very stony----------	0-2	10-190	---	1.8-4.4	0
	2-6	---	1.0-10	4.5-6.0	0
	6-13	---	0.1-5.0	4.5-6.0	0
	13-72	---	---	---	0
CoC:					
Chatfield, very rocky, very stony---	0-1	10-190	---	1.8-4.4	0
	1-7	---	1.0-10	4.5-6.0	0
	7-19	1.0-15	---	4.5-6.0	0
	19-27	1.0-15	---	4.5-6.0	0
	27-32	1.0-10	---	4.5-6.0	0
	32-72	---	---	---	0
Hollis, very rocky, very stony----------	0-2	10-190	---	1.8-4.4	0
	2-6	---	1.0-10	4.5-6.0	0
	6-13	---	0.1-5.0	4.5-6.0	0
	13-72	---	---	---	0
CoD:					
Chatfield, very rocky, very stony---	0-1	10-190	---	1.8-4.4	0
	1-7	---	1.0-10	4.5-6.0	0
	7-19	1.0-15	---	4.5-6.0	0
	19-27	1.0-15	---	4.5-6.0	0
	27-32	1.0-10	---	4.5-6.0	0
	32-72	---	---	---	0
Hollis, very rocky, very stony----------	0-2	10-190	---	1.8-4.4	0
	2-6	---	1.0-10	4.5-6.0	0
	6-13	---	0.1-5.0	4.5-6.0	0
	13-72	---	---	---	0
CoF:					
Chatfield, very rocky, very stony---	0-1	10-190	---	1.8-4.4	0
	1-7	---	1.0-10	4.5-6.0	0
	7-19	1.0-15	---	4.5-6.0	0
	19-27	1.0-15	---	4.5-6.0	0
	27-32	1.0-10	---	4.5-6.0	0
	32-72	---	---	---	0
Hollis, very rocky, very stony----------	0-2	10-190	---	1.8-4.4	0
	2-6	---	1.0-10	4.5-6.0	0
	6-13	---	0.1-5.0	4.5-6.0	0
	13-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
CpB:					
Churchville----------	0-9	10-40	---	5.6-7.3	0
	9-13	15-45	---	6.1-7.8	0
	13-25	15-45	---	6.1-7.8	0-5
	25-35	1.0-10	---	7.4-9.0	3-25
	35-48	1.0-10	---	7.4-9.0	3-25
	48-72	1.0-10	---	7.4-9.0	3-25
CqA:					
Claverack------------	0-12	2.0-15	---	5.1-7.3	0
	12-16	1.0-10	---	5.1-7.3	0
	16-22	1.0-10	---	5.1-7.3	0
	22-26	1.0-10	---	5.1-7.3	0
	26-72	10-30	---	6.6-8.4	0-15
CqB:					
Claverack------------	0-12	2.0-15	---	5.1-7.3	0
	12-16	1.0-10	---	5.1-7.3	0
	16-22	1.0-10	---	5.1-7.3	0
	22-26	1.0-10	---	5.1-7.3	0
	26-72	10-30	---	6.6-8.4	0-15
CrB:					
Collamer-------------	0-11	5.0-25	---	5.1-7.3	0
	11-16	5.0-20	---	5.1-7.3	0
	16-25	5.0-25	---	5.6-7.8	0-5
	25-35	5.0-20	---	6.1-8.4	0-15
	35-72	5.0-20	---	6.1-8.4	0-15
CsA:					
Colton---------------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
CsB:					
Colton---------------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
CsC:					
Colton---------------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
CsD:					
Colton---------------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
CsE:					
Colton	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-10	3.5-6.0	0
	3-6	---	0.1-20	3.5-6.0	0
	6-13	---	0.0-10	3.5-6.0	0
	13-21	1.0-10	---	3.5-6.0	0
	21-72	0.0-5.0	---	4.5-6.5	0
CtA:					
Cornish	0-12	3.0-25	---	4.5-6.5	0
	12-21	1.0-15	---	4.5-6.5	0
	21-35	1.0-10	---	4.5-6.5	0
	35-42	1.0-10	---	4.5-6.5	0
	42-48	1.0-10	---	4.5-6.5	0
	48-53	1.0-10	---	4.5-6.5	0
	53-72	1.0-10	---	4.5-6.5	0
CuA:					
Cosad	0-12	2.0-15	---	5.1-6.5	0
	12-18	2.0-15	---	5.1-7.3	0
	18-23	2.0-15	---	5.1-7.3	0
	23-25	2.0-15	---	5.6-7.8	0
	25-39	20-45	---	6.6-7.8	0-15
	39-72	20-45	---	6.6-8.4	0-15
CuB:					
Cosad	0-12	2.0-15	---	5.1-6.5	0
	12-18	2.0-15	---	5.1-7.3	0
	18-23	2.0-15	---	5.1-7.3	0
	23-25	2.0-15	---	5.6-7.8	0
	25-39	20-45	---	6.6-7.8	0-15
	39-72	20-45	---	6.6-8.4	0-15
CvA:					
Covington	0-9	10-40	---	5.6-7.3	0
	9-19	15-45	---	5.6-7.8	0
	19-24	15-45	---	5.6-7.8	0
	24-36	10-35	---	5.6-7.8	0-5
	36-72	10-30	---	5.6-8.4	5-15
CwA:					
Croghan	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-20	3.5-6.0	0
	3-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	---	0.0-5.0	4.5-6.0	0
	23-29	0.0-5.0	---	4.5-6.0	0
	29-42	0.0-5.0	---	4.5-6.0	0
	42-45	0.0-5.0	---	4.5-6.0	0
	45-72	0.0-5.0	---	4.5-6.0	0
CwB:					
Croghan	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-20	3.5-6.0	0
	3-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	---	0.0-5.0	4.5-6.0	0
	23-29	0.0-5.0	---	4.5-6.0	0
	29-42	0.0-5.0	---	4.5-6.0	0
	42-45	0.0-5.0	---	4.5-6.0	0
	45-72	0.0-5.0	---	4.5-6.0	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
DeA:					
Deerfield	0-10	2.0-15	---	4.5-6.5	0
	10-15	1.0-10	---	4.5-6.5	0
	15-30	1.0-10	---	4.5-6.5	0
	30-72	0.0-5.0	---	4.5-6.5	0
DeB:					
Deerfield	0-10	2.0-15	---	4.5-6.5	0
	10-15	1.0-10	---	4.5-6.5	0
	15-30	1.0-10	---	4.5-6.5	0
	30-72	0.0-5.0	---	4.5-6.5	0
DpC:					
Depeyster	0-4	5.0-25	---	5.6-7.3	0
	4-7	5.0-20	---	5.1-7.3	0
	7-13	5.0-20	---	6.1-7.3	0
	13-18	5.0-25	---	6.1-7.8	0-5
	18-25	5.0-25	---	6.1-7.8	0-5
	25-31	5.0-20	---	6.6-8.4	0-10
	31-72	5.0-20	---	6.6-8.4	0-10
DpD:					
Depeyster	0-4	5.0-25	---	5.6-7.3	0
	4-7	5.0-20	---	5.1-7.3	0
	7-13	5.0-20	---	6.1-7.3	0
	13-18	5.0-25	---	6.1-7.8	0-5
	18-25	5.0-25	---	6.1-7.8	0-5
	25-31	5.0-20	---	6.6-8.4	0-10
	31-72	5.0-20	---	6.6-8.4	0-10
DuC:					
Dunkirk	0-6	5.0-25	---	5.1-6.5	0
	6-10	5.0-20	---	5.1-7.3	0
	10-15	5.0-20	---	5.1-7.3	0
	15-21	5.0-20	---	5.1-7.3	0
	21-29	5.0-25	---	5.6-7.8	0-5
	29-35	5.0-25	---	5.6-7.8	0-5
	35-42	5.0-20	---	6.1-8.4	0-5
	42-72	5.0-20	---	6.1-8.4	0-15
DuD:					
Dunkirk	0-6	5.0-25	---	5.1-6.5	0
	6-10	5.0-20	---	5.1-7.3	0
	10-15	5.0-20	---	5.1-7.3	0
	15-21	5.0-20	---	5.1-7.3	0
	21-29	5.0-25	---	5.6-7.8	0-5
	29-35	5.0-25	---	5.6-7.8	0-5
	35-42	5.0-20	---	6.1-8.4	0-5
	42-72	5.0-20	---	6.1-8.4	0-15
DuE:					
Dunkirk	0-6	5.0-25	---	5.1-6.5	0
	6-10	5.0-20	---	5.1-7.3	0
	10-15	5.0-20	---	5.1-7.3	0
	15-21	5.0-20	---	5.1-7.3	0
	21-29	5.0-25	---	5.6-7.8	0-5
	29-35	5.0-25	---	5.6-7.8	0-5
	35-42	5.0-20	---	6.1-8.4	0-5
	42-72	5.0-20	---	6.1-8.4	0-15

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
DxB:					
Duxbury	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.5-30	3.5-6.5	0
	4-5	---	0.1-15	3.5-6.5	0
	5-13	5.0-40	---	3.5-6.5	0
	13-21	1.0-30	---	3.5-6.5	0
	21-31	0.0-5.0	---	4.5-6.5	0
	31-36	0.0-5.0	---	4.5-6.5	0
	36-72	0.0-5.0	---	4.5-6.5	0
ElB:					
Elmridge	0-8	5.0-25	---	4.5-7.3	0
	8-15	1.0-15	---	5.1-7.3	0
	15-25	1.0-15	---	5.1-7.3	0
	25-31	5.0-20	---	5.1-7.3	0
	31-46	5.0-20	---	5.6-7.8	0-15
	46-72	5.0-20	---	5.6-7.8	0-15
FaD:					
Farmington, very rocky, very stony	0-6	5.0-25	---	5.1-7.3	0
	6-13	3.0-20	---	5.6-7.8	0-15
	13-72	---	---	---	0
FcB:					
Factoryville	0-11	2.0-15	---	5.6-7.3	0
	11-19	1.0-10	---	5.1-7.3	0
	19-29	1.0-10	---	5.1-7.3	0
	29-33	1.0-10	---	5.1-7.3	0
	33-65	0.0-5.0	---	5.6-7.3	0
	65-72	0.0-5.0	---	5.6-7.3	0
Colonie, calcareous substratum	0-9	2.0-15	---	4.5-7.3	0
	9-14	1.0-10	---	4.5-7.3	0
	14-25	1.0-10	---	4.5-7.3	0
	25-37	1.0-10	---	4.5-7.3	0
	37-49	1.0-10	---	4.5-7.3	0
	49-56	0.0-5.0	---	5.1-8.4	0-20
	56-61	0.0-5.0	---	5.1-8.4	0-20
	61-72	0.0-5.0	---	5.1-8.4	0-20
FcC:					
Factoryville	0-11	2.0-15	---	5.6-7.3	0
	11-19	1.0-10	---	5.1-7.3	0
	19-29	1.0-10	---	5.1-7.3	0
	29-33	1.0-10	---	5.1-7.3	0
	33-65	0.0-5.0	---	5.6-7.3	0
	65-72	0.0-5.0	---	5.6-7.3	0
Colonie, calcareous substratum	0-9	2.0-15	---	4.5-7.3	0
	9-14	1.0-10	---	4.5-7.3	0
	14-25	1.0-10	---	4.5-7.3	0
	25-37	1.0-10	---	4.5-7.3	0
	37-49	1.0-10	---	4.5-7.3	0
	49-56	0.0-5.0	---	5.1-8.4	0-20
	56-61	0.0-5.0	---	5.1-8.4	0-20
	61-72	0.0-5.0	---	5.1-8.4	0-20

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
FcD:					
Factoryville---------	0-11	2.0-15	---	5.6-7.3	0
	11-19	1.0-10	---	5.1-7.3	0
	19-29	1.0-10	---	5.1-7.3	0
	29-33	1.0-10	---	5.1-7.3	0
	33-65	0.0-5.0	---	5.6-7.3	0
	65-72	0.0-5.0	---	5.6-7.3	0
Colonie, calcareous substratum----------	0-9	2.0-15	---	4.5-7.3	0
	9-14	1.0-10	---	4.5-7.3	0
	14-25	1.0-10	---	4.5-7.3	0
	25-37	1.0-10	---	4.5-7.3	0
	37-49	1.0-10	---	4.5-7.3	0
	49-56	0.0-5.0	---	5.1-8.4	0-20
	56-61	0.0-5.0	---	5.1-8.4	0-20
	61-72	0.0-5.0	---	5.1-8.4	0-20
FdF:					
Factoryville---------	0-11	2.0-15	---	5.6-7.3	0
	11-19	1.0-10	---	5.1-7.3	0
	19-29	1.0-10	---	5.1-7.3	0
	29-33	1.0-10	---	5.1-7.3	0
	33-65	0.0-5.0	---	5.6-7.3	0
	65-72	0.0-5.0	---	5.6-7.3	0
Dunkirk--------------	0-6	5.0-25	---	5.1-6.5	0
	6-10	5.0-20	---	5.1-7.3	0
	10-15	5.0-20	---	5.1-7.3	0
	15-21	5.0-20	---	5.1-7.3	0
	21-29	5.0-25	---	5.6-7.8	0-5
	29-35	5.0-25	---	5.6-7.8	0-5
	35-42	5.0-20	---	6.1-8.4	0-5
	42-72	5.0-20	---	6.1-8.4	0-15
FgB:					
Farmington, very rocky, very stony---	0-6	5.0-25	---	5.1-7.3	0
	6-13	3.0-20	---	5.6-7.8	0-15
	13-72	---	---	---	0-95
Galway, very rocky, very stony----------	0-5	5.0-25	---	5.6-7.3	0
	5-9	3.0-20	---	5.6-7.8	0
	9-18	3.0-20	---	5.6-7.8	0
	18-35	1.0-10	---	7.4-8.4	3-25
	35-72	---	---	---	0
FkF:					
Farmington, very stony---------------	0-6	5.0-25	---	5.1-7.3	0
	6-13	3.0-20	---	5.6-7.8	0-15
	13-72	---	---	---	0
Rock Outcrop, very stony---------------	0-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
FnB:					
Fernlake, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.1-10	3.5-5.5	0
	4-8	---	0.0-10	3.5-5.5	0
	8-19	---	0.0-5.0	4.5-6.0	0
	19-33	---	0.0-5.0	4.5-6.0	0
	33-41	---	0.0-5.0	5.1-6.5	0
	41-57	---	0.0-5.0	5.1-6.5	0
	57-72	---	0.0-5.0	5.1-6.5	0
FnC:					
Fernlake, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.1-10	3.5-5.5	0
	4-8	---	0.0-10	3.5-5.5	0
	8-19	---	0.0-5.0	4.5-6.0	0
	19-33	---	0.0-5.0	4.5-6.0	0
	33-41	---	0.0-5.0	5.1-6.5	0
	41-57	---	0.0-5.0	5.1-6.5	0
	57-72	---	0.0-5.0	5.1-6.5	0
FnD:					
Fernlake, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.1-10	3.5-5.5	0
	4-8	---	0.0-10	3.5-5.5	0
	8-19	---	0.0-5.0	4.5-6.0	0
	19-33	---	0.0-5.0	4.5-6.0	0
	33-41	---	0.0-5.0	5.1-6.5	0
	41-57	---	0.0-5.0	5.1-6.5	0
	57-72	---	0.0-5.0	5.1-6.5	0
FnF:					
Fernlake, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.1-10	3.5-5.5	0
	4-8	---	0.0-10	3.5-5.5	0
	8-19	---	0.0-5.0	4.5-6.0	0
	19-33	---	0.0-5.0	4.5-6.0	0
	33-41	---	0.0-5.0	5.1-6.5	0
	41-57	---	0.0-5.0	5.1-6.5	0
	57-72	---	0.0-5.0	5.1-6.5	0
FrB:					
Factoryville---------	0-11	2.0-15	---	5.6-7.3	0
	11-19	1.0-10	---	5.1-7.3	0
	19-29	1.0-10	---	5.1-7.3	0
	29-33	1.0-10	---	5.1-7.3	0
	33-65	0.0-5.0	---	5.6-7.3	0
	65-72	0.0-5.0	---	5.6-7.3	0
FuA:					
Fluvaquents, frequently flooded--	0-5	3.0-25	---	5.1-7.3	0
	5-9	1.0-10	---	5.1-7.3	0
	9-21	3.0-25	---	5.1-7.3	0
	21-30	1.0-10	---	5.1-7.3	0
	30-42	1.0-10	---	5.1-7.3	0
	42-72	1.0-10	---	5.1-7.3	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Udifluvents, frequently flooded--	0-4	---	1.0-10	5.1-7.3	0
	4-6	---	3.0-25	5.1-7.3	0
	6-10	---	1.0-10	5.1-7.3	0
	10-12	---	3.0-25	5.1-7.3	0
	12-24	---	1.0-10	5.1-7.3	0
	24-28	---	3.0-25	5.1-7.3	0
	28-34	---	1.0-10	5.1-7.3	0
	34-38	---	3.0-25	5.1-7.3	0
	38-44	---	1.0-10	5.1-7.3	0
	44-56	---	1.0-10	5.1-7.3	0
	56-72	---	1.0-10	5.1-7.3	0
GeB:					
Georgia--------------	0-9	5.0-25	---	5.1-7.3	0
	9-15	1.0-15	---	5.1-7.3	0
	15-20	1.0-15	---	5.1-7.3	0
	20-30	1.0-15	---	5.1-7.8	0
	30-72	1.0-10	---	5.1-7.8	0-25
GeC:					
Georgia--------------	0-9	5.0-25	---	5.1-7.3	0
	9-15	1.0-15	---	5.1-7.3	0
	15-20	1.0-15	---	5.1-7.3	0
	20-30	1.0-15	---	5.1-7.8	0
	30-72	1.0-10	---	5.1-7.8	0-25
GoA:					
Gougeville-----------	0-6	20-40	---	5.1-6.5	0
	6-12	1.0-9.0	---	5.6-7.8	0
	12-25	1.0-9.0	---	5.6-7.8	0
	25-40	1.0-9.0	---	5.6-7.8	0
	40-58	1.0-9.0	---	5.6-7.8	0-2
	58-72	1.0-9.0	---	5.6-7.8	0-2
HaB:					
Hailesboro-----------	0-1	10-190	---	4.0-6.5	0
	1-9	5.0-25	---	5.6-7.3	0
	9-17	5.0-20	---	5.6-7.8	0
	17-23	5.0-20	---	5.6-7.8	0
	23-30	5.0-25	---	5.6-7.8	0-5
	30-44	5.0-25	---	5.6-7.8	0-5
	44-54	5.0-20	---	6.6-8.4	0-15
	54-72	5.0-20	---	6.6-8.4	0-15
HcB:					
Howard---------------	0-1	10-190	---	4.0-6.5	0
	1-4	5.0-25	---	5.1-7.3	0
	4-11	3.0-25	---	5.1-7.3	0
	11-15	3.0-25	---	5.1-7.3	0
	15-22	3.0-25	---	5.1-7.3	0-5
	22-35	0.0-5.0	---	6.6-8.4	0-20
	35-72	0.0-5.0	---	6.6-8.4	0-20
HcC:					
Howard---------------	0-1	10-190	---	4.0-6.5	0
	1-4	5.0-25	---	5.1-7.3	0
	4-11	3.0-25	---	5.1-7.3	0
	11-15	3.0-25	---	5.1-7.3	0
	15-22	3.0-25	---	5.1-7.3	0-5
	22-35	0.0-5.0	---	6.6-8.4	0-20
	35-72	0.0-5.0	---	6.6-8.4	0-20

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
HcD:					
Howard	0-1	10-190	---	4.0-6.5	0
	1-4	5.0-25	---	5.1-7.3	0
	4-11	3.0-25	---	5.1-7.3	0
	11-15	3.0-25	---	5.1-7.3	0
	15-22	3.0-25	---	5.1-7.3	0-5
	22-35	0.0-5.0	---	6.6-8.4	0-20
	35-72	0.0-5.0	---	6.6-8.4	0-20
HdB:					
Hartland	0-12	5.0-20	---	5.1-7.8	0
	12-19	1.0-10	---	5.1-7.8	0
	19-30	1.0-10	---	5.1-7.8	0
	30-45	0.1-5.0	---	5.1-7.8	0
	45-60	0.1-5.0	---	5.1-7.8	0
	60-72	0.1-5.0	---	5.1-7.8	0
HgB:					
Howard	0-1	10-190	---	4.0-6.5	0
	1-4	5.0-25	---	5.1-7.3	0
	4-11	3.0-25	---	5.1-7.3	0
	11-15	3.0-25	---	5.1-7.3	0
	15-22	3.0-25	---	5.1-7.3	0-5
	22-35	0.0-5.0	---	6.6-8.4	0-20
	35-72	0.0-5.0	---	6.6-8.4	0-20
HlB:					
Howard	0-1	10-190	---	4.0-6.5	0
	1-6	5.0-25	---	5.1-7.3	0
	6-10	3.0-25	---	5.1-7.3	0
	10-13	3.0-25	---	5.1-7.3	0
	13-20	3.0-25	---	5.1-7.3	0-5
	20-29	3.0-25	---	5.1-7.3	0-5
	29-33	3.0-20	---	5.1-7.3	0-5
	33-54	0.0-5.0	---	6.6-8.4	0-20
	54-72	1.0-10	---	6.6-8.4	3-25
HlC:					
Howard	0-1	10-190	---	4.0-6.5	0
	1-6	5.0-25	---	5.1-7.3	0
	6-10	3.0-25	---	5.1-7.3	0
	10-13	3.0-25	---	5.1-7.3	0
	13-20	3.0-25	---	5.1-7.3	0-5
	20-29	3.0-25	---	5.1-7.3	0-5
	29-33	3.0-20	---	5.1-7.3	0-5
	33-54	0.0-5.0	---	6.6-8.4	0-20
	54-72	1.0-10	---	6.6-8.4	3-25
HmB:					
Howard	0-1	10-190	---	4.0-6.5	0
	1-6	5.0-25	---	5.1-7.3	0
	6-10	3.0-25	---	5.1-7.3	0
	10-13	3.0-25	---	5.1-7.3	0
	13-20	3.0-25	---	5.1-7.3	0-5
	20-29	3.0-25	---	5.1-7.3	0-5
	29-33	3.0-20	---	5.1-7.3	0-5
	33-54	0.0-2.0	---	6.6-8.4	0-20
	54-72	1.0-10	---	6.6-8.4	3-25

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
HnC:					
Hermon, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-5	---	0.1-15	3.5-5.5	0
	5-10	---	0.5-30	3.5-6.0	0
	10-20	---	0.5-15	3.5-6.0	0
	20-29	---	0.0-5.0	5.1-6.0	0
	29-38	---	0.0-5.0	5.1-6.0	0
	38-72	---	0.0-5.0	5.1-6.0	0
HnD:					
Hermon, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-5	---	0.1-15	3.5-5.5	0
	5-10	---	0.5-30	3.5-6.0	0
	10-20	---	0.5-15	3.5-6.0	0
	20-29	---	0.0-5.0	5.1-6.0	0
	29-38	---	0.0-5.0	5.1-6.0	0
	38-72	---	0.0-5.0	5.1-6.0	0
HrF:					
Hogback, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-5.5	0
	4-6	---	0.5-30	3.5-5.5	0
	6-14	---	0.5-30	3.5-5.5	0
	14-72	---	---	---	0
Knob Lock, very rocky, very bouldery	0-3	10-190	---	1.8-4.4	0
	3-7	10-190	---	1.8-4.4	0
	7-9	---	0.5-15	3.5-5.0	0
	9-72	---	---	---	0
HsD:					
Hollis, very stony---	0-2	10-190	---	1.8-4.4	0
	2-6	---	1.0-10	4.5-6.0	0
	6-13	---	0.1-5.0	4.5-6.0	0
	13-72	---	---	---	0
Rock Outcrop, very stony---------------	0-72	---	---	---	0
HsF:					
Hollis, very stony---	0-2	10-190	---	1.8-4.4	0
	2-6	---	1.0-10	4.5-6.0	0
	6-13	---	0.1-5.0	4.5-6.0	0
	13-72	---	---	---	0
Rock Outcrop, very stony---------------	0-72	---	---	---	0
KaB:					
Kalurah--------------	0-9	5.0-25	---	5.6-7.3	0
	9-13	1.0-15	---	6.1-7.3	0
	13-22	1.0-15	---	6.1-7.3	0
	22-32	1.0-15	---	6.1-7.3	0
	32-47	1.0-10	---	6.6-8.4	0-25
	47-72	1.0-10	---	6.6-8.4	0-25

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
KaC:					
Kalurah---------------	0-9	5.0-25	---	5.6-7.3	0
	9-13	1.0-15	---	6.1-7.3	0
	13-22	1.0-15	---	6.1-7.3	0
	22-32	1.0-15	---	6.1-7.3	0
	32-47	1.0-10	---	6.6-8.4	0-25
	47-72	1.0-10	---	6.6-8.4	0-25
KgB:					
Kalurah, very stony--	0-9	5.0-25	---	5.6-7.3	0
	9-13	1.0-15	---	6.1-7.3	0
	13-22	1.0-15	---	6.1-7.3	0
	22-32	1.0-15	---	6.1-7.3	0
	32-47	1.0-10	---	6.6-8.4	0-25
	47-72	1.0-10	---	6.6-8.4	0-25
KgC:					
Kalurah, very stony--	0-9	5.0-25	---	5.6-7.3	0
	9-13	1.0-15	---	6.1-7.3	0
	13-22	1.0-15	---	6.1-7.3	0
	22-32	1.0-15	---	6.1-7.3	0
	32-47	1.0-10	---	6.6-8.4	0-25
	47-72	1.0-10	---	6.6-8.4	0-25
KyA:					
Kingsbury------------	0-9	10-40	---	5.1-7.8	0
	9-14	15-45	---	5.1-7.8	0
	14-21	15-45	---	5.1-7.8	0-5
	21-34	10-30	---	7.9-8.4	0-15
	34-65	10-30	---	7.9-8.4	5-15
	65-93	10-30	---	7.9-8.4	5-15
KyB:					
Kingsbury------------	0-9	10-40	---	5.1-7.8	0
	9-14	15-45	---	5.1-7.8	0
	14-21	15-45	---	5.1-7.8	0-5
	21-34	10-30	---	7.9-8.4	0-15
	34-65	10-30	---	7.9-8.4	5-15
	65-93	10-30	---	7.9-8.4	5-15
LnA:					
Livingston-----------	0-9	10-40	---	5.1-7.3	0
	9-21	10-35	---	5.1-7.3	0
	21-35	10-35	---	5.1-7.3	0
	35-46	10-35	---	6.6-7.8	0-5
	46-56	10-30	---	7.4-8.4	5-15
	56-72	10-30	---	7.4-8.4	5-15
LvA:					
Lovewell-------------	0-11	4.0-11	---	4.5-6.5	0
	11-20	1.0-5.0	---	4.5-6.5	0
	20-30	1.0-5.0	---	4.5-6.5	0
	30-50	1.0-3.0	---	4.5-6.5	0
	50-56	1.0-2.0	---	4.5-6.5	0
	56-75	1.0-2.0	---	4.5-6.5	0
LyD:					
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Knob Lock, very rocky, very bouldery	0-3	10-190	---	1.8-4.4	0
	3-7	10-190	---	1.8-4.4	0
	7-9	---	0.5-15	3.5-5.0	0
	9-72	---	---	---	0
LyF:					
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0
Knob Lock, very rocky, very bouldery	0-3	10-190	---	1.8-4.4	0
	3-7	10-190	---	1.8-4.4	0
	7-9	---	0.5-15	3.5-5.0	0
	9-72	---	---	---	0
MaB:					
Malone---------------	0-7	5.0-25	---	5.6-6.5	0
	7-12	3.0-20	---	5.6-7.3	0
	12-17	3.0-20	---	6.1-7.3	0
	17-25	3.0-20	---	6.1-7.3	0
	25-72	1.0-10	---	6.6-7.8	2-25
MbB:					
Malone, very stony---	0-7	5.0-25	---	5.6-6.5	0
	7-12	3.0-20	---	5.6-7.3	0
	12-17	3.0-20	---	6.1-7.3	0
	17-25	3.0-20	---	6.1-7.3	0
	25-72	1.0-10	---	6.6-7.8	2-25
McA:					
Massena--------------	0-9	5.0-25	---	5.6-7.3	0
	9-18	3.0-20	---	5.6-7.3	0
	18-24	3.0-20	---	5.6-7.3	0
	24-72	1.0-10	---	6.6-8.4	2-25
McB:					
Massena--------------	0-9	5.0-25	---	5.6-7.3	0
	9-18	3.0-20	---	5.6-7.3	0
	18-24	3.0-20	---	5.6-7.3	0
	24-72	1.0-10	---	6.6-8.4	2-25
MdA:					
Medomak--------------	0-1	50-200	---	3.5-7.3	0
	1-5	50-200	---	3.5-7.3	0
	5-11	3.0-25	---	3.5-7.3	0
	11-20	1.0-10	---	3.5-7.3	0
	20-29	1.0-10	---	3.5-7.3	0
	29-31	3.0-25	---	3.5-7.8	0
	31-41	1.0-10	---	3.5-7.8	0
	41-48	1.0-10	---	3.5-7.8	0
	48-72	1.0-10	---	3.5-7.8	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
MhB:					
Monadnock------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
MhC:					
Monadnock------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
MkB:					
Monadnock, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
MkC:					
Monadnock, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
MkD:					
Monadnock, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
MkF:					
Monadnock, very bouldery------------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
MmF:					
Monadnock, bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
Adams	0-2	10-190	---	1.8-4.4	0
	2-4	10-190	---	1.8-4.4	0
	4-5	---	0.1-10	3.5-6.0	0
	5-8	---	0.1-20	4.5-6.0	0
	8-14	---	0.0-10	4.5-6.0	0
	14-23	1.0-10	---	4.5-6.0	0
	23-72	0.0-5.0	---	4.5-6.5	0
MnC:					
Monadnock, rocky, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
Tunbridge, rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
MnD:					
Monadnock, rocky, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
Tunbridge, rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
MnF:					
Monadnock, rocky, very bouldery-------	0-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-12	---	0.5-15	3.5-6.0	0
	12-19	---	0.5-15	3.5-6.0	0
	19-30	---	0.1-10	3.5-6.0	0
	30-37	---	0.0-5.0	3.5-6.0	0
	37-72	---	0.0-5.0	3.5-6.0	0
Tunbridge, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
MoA:					
Mooers---------------	0-1	10-190	---	1.8-4.4	0
	1-4	2.0-15	---	5.1-6.5	0
	4-16	1.0-10	---	5.6-7.8	0
	16-22	1.0-10	---	5.6-7.8	0
	22-42	0.0-5.0	---	5.6-7.8	0
	42-58	0.0-5.0	---	5.6-7.8	0-5
	58-72	0.0-5.0	---	5.6-7.8	0-5
MuC:					
Mundalite, very bouldery------------	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-15	3.5-6.0	0
	3-5	---	0.5-30	3.5-6.0	0
	5-14	---	0.5-15	3.5-6.0	0
	14-27	---	0.5-15	3.5-6.0	0
	27-37	---	0.1-10	4.5-6.5	0
	37-72	---	0.1-10	4.5-6.5	0
MuD:					
Mundalite, very bouldery------------	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-15	3.5-6.0	0
	3-5	---	0.5-30	3.5-6.0	0
	5-14	---	0.5-15	3.5-6.0	0
	14-27	---	0.5-15	3.5-6.0	0
	27-37	---	0.1-10	4.5-6.5	0
	37-72	---	0.1-10	4.5-6.5	0
MwC:					
Mundalite, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-15	3.5-6.0	0
	3-5	---	0.5-30	3.5-6.0	0
	5-14	---	0.5-15	3.5-6.0	0
	14-27	---	0.5-15	3.5-6.0	0
	27-37	---	0.1-10	4.5-6.5	0
	37-72	---	0.1-10	4.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Rawsonville, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0
MwD:					
Mundalite, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	---	0.1-15	3.5-6.0	0
	3-5	---	0.5-30	3.5-6.0	0
	5-14	---	0.5-15	3.5-6.0	0
	14-27	---	0.5-15	3.5-6.0	0
	27-37	---	0.1-10	4.5-6.5	0
	37-72	---	0.1-10	4.5-6.5	0
Rawsonville, rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0
NaA:					
Naumburg-------------	0-2	10-190	---	1.8-4.4	0
	2-7	---	0.1-10	3.5-5.5	0
	7-10	---	0.1-20	3.5-5.5	0
	10-18	---	0.0-10	3.5-5.5	0
	18-31	---	0.0-5.0	3.5-5.5	0
	31-54	---	0.0-5.0	4.5-6.5	0
	54-72	---	0.0-5.0	4.5-6.5	0
NeB:					
Nellis---------------	0-9	5.0-25	---	5.6-7.3	0
	9-16	3.0-20	---	5.6-7.3	0
	16-21	3.0-20	---	5.6-7.3	0
	21-26	3.0-20	---	5.6-7.8	0
	26-37	3.0-20	---	5.6-7.8	0
	37-60	1.0-10	---	6.6-8.4	3-25
	60-72	1.0-10	---	6.6-8.4	3-25
NeC:					
Nellis---------------	0-9	5.0-25	---	5.6-7.3	0
	9-16	3.0-20	---	5.6-7.3	0
	16-21	3.0-20	---	5.6-7.3	0
	21-26	3.0-20	---	5.6-7.8	0
	26-37	3.0-20	---	5.6-7.8	0
	37-60	1.0-10	---	6.6-8.4	3-25
	60-72	1.0-10	---	6.6-8.4	3-25

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
NeD:					
Nellis	0-9	5.0-25	---	5.6-7.3	0
	9-16	3.0-20	---	5.6-7.3	0
	16-21	3.0-20	---	5.6-7.3	0
	21-26	3.0-20	---	5.6-7.8	0
	26-37	3.0-20	---	5.6-7.8	0
	37-60	1.0-10	---	6.6-8.4	3-25
	60-72	1.0-10	---	6.6-8.4	3-25
NgA:					
Niagara	0-9	5.0-25	---	5.1-7.3	0
	9-12	5.0-20	---	5.1-7.3	0
	12-18	5.0-20	---	5.1-7.3	0
	18-35	5.0-25	---	5.6-7.8	0-5
	35-48	5.0-20	---	6.6-8.4	0-15
	48-72	5.0-20	---	6.6-8.4	0-15
NgB:					
Niagara	0-9	5.0-25	---	5.1-7.3	0
	9-12	5.0-20	---	5.1-7.3	0
	12-18	5.0-20	---	5.1-7.3	0
	18-35	5.0-25	---	5.6-7.8	0-5
	35-48	5.0-20	---	6.6-8.4	0-15
	48-72	5.0-20	---	6.6-8.4	0-15
NvB:					
Nicholville	0-1	10-190	---	4.0-6.5	0
	1-6	---	0.5-30	3.5-6.0	0
	6-7	---	0.1-15	3.5-6.0	0
	7-12	---	0.1-15	4.5-6.0	0
	12-20	---	0.1-10	4.5-6.0	0
	20-25	0.1-5.0	---	4.5-7.3	0
	25-38	0.1-5.0	---	4.5-7.3	0
	38-54	0.1-5.0	---	4.5-7.3	0
	54-72	0.1-5.0	---	4.5-7.3	0
OmA:					
Occum	0-9	3.0-25	---	4.5-6.5	0
	9-21	1.0-15	---	4.5-6.5	0
	21-30	1.0-15	---	4.5-6.5	0
	30-36	1.0-10	---	4.5-6.5	0
	36-72	1.0-10	---	4.5-6.5	0
OwA:					
Ondawa	0-9	3.0-25	---	4.5-6.5	0
	9-21	1.0-15	---	4.5-6.5	0
	21-34	1.0-15	---	4.5-6.5	0
	34-72	1.0-10	---	4.5-6.5	0
Pc:					
Pits, Quarry	0-72	---	---	---	0
Pd:					
Pits, Sand And Gravel	0-10	---	0.0-5.0	3.5-8.4	0
	10-72	---	0.0-5.0	3.5-8.4	0
PfB:					
Pittsfield	0-8	---	1.0-10	4.5-7.3	0
	8-10	---	0.1-5.0	5.1-7.3	0
	10-20	1.0-15	---	5.1-7.3	0
	20-24	1.0-15	---	5.1-7.3	0
	24-30	1.0-15	---	5.6-7.3	0
	30-45	1.0-15	---	5.6-7.3	0
	45-59	1.0-10	---	5.6-8.4	0-25
	59-72	1.0-10	---	5.6-8.4	3-25

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
PfC:					
Pittsfield-----------	0-8	---	1.0-10	4.5-7.3	0
	8-10	---	0.1-5.0	5.1-7.3	0
	10-20	1.0-15	---	5.1-7.3	0
	20-24	1.0-15	---	5.1-7.3	0
	24-30	1.0-15	---	5.6-7.3	0
	30-45	1.0-15	---	5.6-7.3	0
	45-59	1.0-10	---	5.6-8.4	0-25
	59-72	1.0-10	---	5.6-8.4	3-25
PfD:					
Pittsfield-----------	0-8	---	1.0-10	4.5-7.3	0
	8-10	---	0.1-5.0	5.1-7.3	0
	10-20	1.0-15	---	5.1-7.3	0
	20-24	1.0-15	---	5.1-7.3	0
	24-30	1.0-15	---	5.6-7.3	0
	30-45	1.0-15	---	5.6-7.3	0
	45-59	1.0-10	---	5.6-8.4	0-25
	59-72	1.0-10	---	5.6-8.4	3-25
PfE:					
Pittsfield-----------	0-8	---	1.0-10	4.5-7.3	0
	8-10	---	0.1-5.0	5.1-7.3	0
	10-20	1.0-15	---	5.1-7.3	0
	20-24	1.0-15	---	5.1-7.3	0
	24-30	1.0-15	---	5.6-7.3	0
	30-45	1.0-15	---	5.6-7.3	0
	45-59	1.0-10	---	5.6-8.4	0-25
	59-72	1.0-10	---	5.6-8.4	3-25
PkA:					
Pleasant Lake--------	0-4	50-200	---	1.8-4.4	0
	4-5	50-200	---	1.8-4.4	0
	5-9	50-200	---	1.8-4.4	0
	9-31	50-200	---	1.8-4.4	0
	31-44	50-200	---	1.8-4.4	0
	44-53	50-200	---	1.8-4.4	0
	53-66	50-200	---	1.8-4.4	0
PlB:					
Pittsfield, rocky, very stony----------	0-8	---	1.0-10	4.5-7.3	0
	8-10	---	0.1-5.0	5.1-7.3	0
	10-20	1.0-15	---	5.1-7.3	0
	20-24	1.0-15	---	5.1-7.3	0
	24-30	1.0-15	---	5.6-7.3	0
	30-45	1.0-15	---	5.6-7.3	0
	45-59	1.0-10	---	5.6-8.4	0-25
	59-72	1.0-10	---	5.6-8.4	3-25
Chatfield, rocky, very stony----------	0-1	10-190	---	1.8-4.4	0
	1-7	---	1.0-10	4.5-6.0	0
	7-19	1.0-15	---	4.5-6.0	0
	19-27	1.0-15	---	4.5-6.0	0
	27-32	1.0-10	---	4.5-6.0	0
	32-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
PlC:					
Pittsfield, rocky, very stony----------	0-8	---	1.0-10	4.5-7.3	0
	8-10	---	0.1-5.0	5.1-7.3	0
	10-20	1.0-15	---	5.1-7.3	0
	20-24	1.0-15	---	5.1-7.3	0
	24-30	1.0-15	---	5.6-7.3	0
	30-45	1.0-15	---	5.6-7.3	0
	45-59	1.0-10	---	5.6-8.4	0-25
	59-72	1.0-10	---	5.6-8.4	3-25
Chatfield, rocky, very stony----------	0-1	10-190	---	1.8-4.4	0
	1-7	---	1.0-10	4.5-6.0	0
	7-19	1.0-15	---	4.5-6.0	0
	19-27	1.0-15	---	4.5-6.0	0
	27-32	1.0-10	---	4.5-6.0	0
	32-72	---	---	---	0
PlD:					
Pittsfield, rocky, very stony----------	0-8	---	1.0-10	4.5-7.3	0
	8-10	---	0.1-5.0	5.1-7.3	0
	10-20	1.0-15	---	5.1-7.3	0
	20-24	1.0-15	---	5.1-7.3	0
	24-30	1.0-15	---	5.6-7.3	0
	30-45	1.0-15	---	5.6-7.3	0
	45-59	1.0-10	---	5.6-8.4	0-25
	59-72	1.0-10	---	5.6-8.4	3-25
Chatfield, rocky, very stony----------	0-1	10-190	---	1.8-4.4	0
	1-7	---	1.0-10	4.5-6.0	0
	7-19	1.0-15	---	4.5-6.0	0
	19-27	1.0-15	---	4.5-6.0	0
	27-32	1.0-10	---	4.5-6.0	0
	32-72	---	---	---	0
PlF:					
Pittsfield, rocky, very stony----------	0-8	---	1.0-10	4.5-7.3	0
	8-10	---	0.1-5.0	5.1-7.3	0
	10-20	1.0-15	---	5.1-7.3	0
	20-24	1.0-15	---	5.1-7.3	0
	24-30	1.0-15	---	5.6-7.3	0
	30-45	1.0-15	---	5.6-7.3	0
	45-59	1.0-10	---	5.6-8.4	0-25
	59-72	1.0-10	---	5.6-8.4	3-25
Chatfield, rocky, very stony----------	0-1	10-190	---	1.8-4.4	0
	1-7	---	1.0-10	4.5-6.0	0
	7-19	1.0-15	---	4.5-6.0	0
	19-27	1.0-15	---	4.5-6.0	0
	27-32	1.0-10	---	4.5-6.0	0
	32-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
PoA:					
Podunk---------------	0-7	3.0-25	---	4.5-6.5	0
	7-11	---	1.0-7.0	4.5-6.5	0
	11-18	---	1.0-7.0	4.5-6.5	0
	18-31	---	0.1-5.0	4.5-6.5	0
	31-34	---	1.0-10	4.5-6.5	0
	34-39	---	0.1-5.0	4.5-6.5	0
	39-45	1.0-10	---	4.5-6.5	0
	45-53	1.0-10	---	4.5-6.5	0
	53-72	1.0-10	---	4.5-6.5	0
PrA:					
Pootatuck------------	0-5	3.0-25	---	4.5-6.5	0
	5-9	1.0-15	---	4.5-6.5	0
	9-14	1.0-15	---	4.5-6.5	0
	14-21	1.0-15	---	4.5-6.5	0
	21-32	1.0-10	---	4.5-6.5	0
	32-47	1.0-10	---	4.5-6.5	0
	47-72	1.0-10	---	4.5-6.5	0
PtB:					
Pyrities-------------	0-4	5.0-25	---	5.6-7.3	0
	4-7	1.0-15	---	5.6-7.3	0
	7-11	1.0-15	---	6.1-7.8	0
	11-20	1.0-15	---	6.1-7.8	0
	20-28	1.0-15	---	6.1-7.8	0
	28-54	1.0-10	---	6.1-8.4	0-25
	54-72	1.0-10	---	6.1-8.4	3-25
PtC:					
Pyrities-------------	0-4	5.0-25	---	5.6-7.3	0
	4-7	1.0-15	---	5.6-7.3	0
	7-11	1.0-15	---	6.1-7.8	0
	11-20	1.0-15	---	6.1-7.8	0
	20-28	1.0-15	---	6.1-7.8	0
	28-54	1.0-10	---	6.1-8.4	0-25
	54-72	1.0-10	---	6.1-8.4	3-25
PtD:					
Pyrities-------------	0-4	5.0-25	---	5.6-7.3	0
	4-7	1.0-15	---	5.6-7.3	0
	7-11	1.0-15	---	6.1-7.8	0
	11-20	1.0-15	---	6.1-7.8	0
	20-28	1.0-15	---	6.1-7.8	0
	28-54	1.0-10	---	6.1-8.4	0-25
	54-72	1.0-10	---	6.1-8.4	3-25
PuC:					
Pyrities, very stony-	0-4	5.0-25	---	5.6-7.3	0
	4-7	1.0-15	---	5.6-7.3	0
	7-11	1.0-15	---	6.1-7.8	0
	11-20	1.0-15	---	6.1-7.8	0
	20-28	1.0-15	---	6.1-7.8	0
	28-54	1.0-10	---	6.1-8.4	0-25
	54-72	1.0-10	---	6.1-8.4	3-25
PuD:					
Pyrities, very stony-	0-4	5.0-25	---	5.6-7.3	0
	4-7	1.0-15	---	5.6-7.3	0
	7-11	1.0-15	---	6.1-7.8	0
	11-20	1.0-15	---	6.1-7.8	0
	20-28	1.0-15	---	6.1-7.8	0
	28-54	1.0-10	---	6.1-8.4	0-25
	54-72	1.0-10	---	6.1-8.4	3-25

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
PwC:					
Pyrities, very stony-	0-4	5.0-25	---	5.6-7.3	0
	4-7	1.0-15	---	5.6-7.3	0
	7-11	1.0-15	---	6.1-7.8	0
	11-20	1.0-15	---	6.1-7.8	0
	20-28	1.0-15	---	6.1-7.8	0
	28-54	1.0-10	---	6.1-8.4	0-25
	54-72	1.0-10	---	6.1-8.4	3-25
Nehasne, very stony--	0-6	5.0-25	---	5.6-6.5	0
	6-13	1.0-15	---	6.1-7.3	0
	13-20	1.0-15	---	6.1-7.3	0
	20-25	1.0-10	---	6.6-7.8	0-25
	25-72	---	---	---	0
PwD:					
Pyrities, very stony-	0-4	5.0-25	---	5.6-7.3	0
	4-7	1.0-15	---	5.6-7.3	0
	7-11	1.0-15	---	6.1-7.8	0
	11-20	1.0-15	---	6.1-7.8	0
	20-28	1.0-15	---	6.1-7.8	0
	28-54	1.0-10	---	6.1-8.4	0-25
	54-72	1.0-10	---	6.1-8.4	3-25
Nehasne, very stony--	0-6	5.0-25	---	5.6-6.5	0
	6-13	1.0-15	---	6.1-7.3	0
	13-20	1.0-15	---	6.1-7.3	0
	20-25	1.0-10	---	6.6-7.8	0-25
	25-72	---	---	---	0
PyC:					
Pyrities-------------	0-4	5.0-25	---	5.6-7.3	0
	4-7	1.0-15	---	5.6-7.3	0
	7-11	1.0-15	---	6.1-7.8	0
	11-20	1.0-15	---	6.1-7.8	0
	20-28	1.0-15	---	6.1-7.8	0
	28-54	1.0-10	---	6.1-8.4	0-25
	54-72	1.0-10	---	6.1-8.4	3-25
Nehasne--------------	0-6	5.0-25	---	5.6-6.5	0
	6-13	1.0-15	---	6.1-7.3	0
	13-20	1.0-15	---	6.1-7.3	0
	20-25	1.0-10	---	6.6-7.8	0-25
	25-72	---	---	---	0
PyD:					
Pyrities-------------	0-4	5.0-25	---	5.6-7.3	0
	4-7	1.0-15	---	5.6-7.3	0
	7-11	1.0-15	---	6.1-7.8	0
	11-20	1.0-15	---	6.1-7.8	0
	20-28	1.0-15	---	6.1-7.8	0
	28-54	1.0-10	---	6.1-8.4	0-25
	54-72	1.0-10	---	6.1-8.4	3-25
Nehasne--------------	0-6	5.0-25	---	5.6-6.5	0
	6-13	1.0-15	---	6.1-7.3	0
	13-20	1.0-15	---	6.1-7.3	0
	20-25	1.0-10	---	6.6-7.8	0-25
	25-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
RaC:					
Rawsonville, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0
Hogback, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-5.5	0
	4-6	---	0.5-30	3.5-5.5	0
	6-14	---	0.5-30	3.5-5.5	0
	14-72	---	---	---	0
RaD:					
Rawsonville, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0
Hogback, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-5.5	0
	4-6	---	0.5-30	3.5-5.5	0
	6-14	---	0.5-30	3.5-5.5	0
	14-72	---	---	---	0
RaF:					
Rawsonville, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.5-30	3.5-5.5	0
	3-4	---	0.1-15	3.5-5.5	0
	4-5	---	0.5-30	3.5-5.5	0
	5-11	---	0.5-30	3.5-5.5	0
	11-20	---	0.5-15	3.5-5.5	0
	20-25	---	0.1-10	3.5-5.5	0
	25-72	---	---	---	0
Hogback, very rocky, very bouldery-------	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-5.5	0
	4-6	---	0.5-30	3.5-5.5	0
	6-14	---	0.5-30	3.5-5.5	0
	14-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
RmA:					
Rippowam	0-2	50-200	---	4.5-7.3	0
	2-11	5.0-25	---	4.5-7.3	0
	11-21	1.0-15	---	4.5-7.3	0
	21-29	1.0-15	---	4.5-7.3	0
	29-36	1.0-15	---	4.5-7.3	0
	36-43	1.0-15	---	4.5-7.3	0
	43-72	1.0-15	---	4.5-7.3	0
RpF:					
Rock Outcrop, very bouldery	0-72	---	---	---	0
Knob Lock, very rocky, very bouldery	0-3	10-190	---	1.8-4.4	0
	3-7	10-190	---	1.8-4.4	0
	7-9	---	0.5-15	3.5-5.0	0
	9-72	---	---	---	0
Lyman, very rocky, very bouldery	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0
RsA:					
Roundabout	0-11	5.0-20	---	4.5-6.5	0
	11-19	1.0-10	---	4.5-6.5	0
	19-28	1.0-10	---	4.5-6.5	0
	28-42	0.1-5.0	---	5.6-7.3	0
	42-72	0.1-5.0	---	5.6-7.3	0
RuA:					
Rumney	0-7	3.0-25	---	4.5-7.3	0
	7-12	1.0-15	---	4.5-7.3	0
	12-19	1.0-15	---	4.5-7.3	0
	19-30	1.0-15	---	4.5-7.3	0
	30-33	1.0-10	---	4.5-7.3	0
	33-48	1.0-10	---	4.5-7.3	0
	48-54	1.0-10	---	4.5-7.3	0
	54-72	1.0-10	---	4.5-7.3	0
RyA:					
Rumney	0-7	3.0-25	---	4.5-7.3	0
	7-12	1.0-15	---	4.5-7.3	0
	12-19	1.0-15	---	4.5-7.3	0
	19-30	1.0-15	---	4.5-7.3	0
	30-33	1.0-10	---	4.5-7.3	0
	33-48	1.0-10	---	4.5-7.3	0
	48-54	1.0-10	---	4.5-7.3	0
	54-72	1.0-10	---	4.5-7.3	0
Burnt Vly	0-10	50-200	---	1.8-4.5	0
	10-15	50-200	---	1.8-4.5	0
	15-24	50-200	---	1.8-4.5	0
	24-34	50-200	---	1.8-4.5	0
	34-56	0.0-5.0	---	3.5-6.5	0
	56-72	0.0-5.0	---	3.5-6.5	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
SeA:					
Searsport------------	0-4	50-200	---	3.5-6.5	0
	4-9	50-200	---	3.5-6.5	0
	9-14	---	0.1-15	3.5-6.5	0
	14-22	0.0-5.0	---	4.5-6.5	0
	22-32	0.0-5.0	---	4.5-6.5	0
	32-40	0.0-5.0	---	4.5-6.5	0
	40-48	0.0-5.0	---	4.5-6.5	0
	48-54	0.0-5.0	---	4.5-6.5	0
	54-72	0.0-5.0	---	4.5-6.5	0
SkB:					
Skerry---------------	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.5-30	3.5-6.5	0
	4-5	---	0.1-15	3.5-6.5	0
	5-9	---	0.5-30	3.5-6.5	0
	9-15	---	0.5-15	3.5-6.5	0
	15-26	1.0-20	---	3.5-6.5	0
	26-38	1.0-20	---	3.5-6.5	0
	38-72	0.1-15	---	4.5-7.3	0
SnB:					
Sunapee, very bouldery------------	0-1	10-190	---	1.8-4.4	0
	1-4	---	0.5-30	3.5-5.5	0
	4-5	---	0.1-15	3.5-5.5	0
	5-7	---	0.5-15	3.5-5.5	0
	7-14	---	0.5-15	3.5-5.5	0
	14-19	---	0.1-10	3.5-5.5	0
	19-31	---	0.1-10	3.5-5.5	0
	31-72	---	0.1-10	3.5-6.0	0
SpB:					
Sunapee--------------	0-1	10-190	---	1.8-4.4	0
	1-4	---	0.5-30	3.5-5.5	0
	4-5	---	0.1-15	3.5-5.5	0
	5-7	---	0.5-15	3.5-5.5	0
	7-14	---	0.5-15	3.5-5.5	0
	14-19	---	0.1-10	3.5-5.5	0
	19-31	---	0.1-10	3.5-5.5	0
	31-72	---	0.1-10	3.5-6.0	0
SrB:					
Skerry, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.5-30	3.5-6.5	0
	4-5	---	0.1-15	3.5-6.5	0
	5-9	---	0.5-30	3.5-6.5	0
	9-15	---	0.5-15	3.5-6.5	0
	15-26	1.0-20	---	3.5-6.5	0
	26-38	1.0-20	---	3.5-6.5	0
	38-72	0.1-15	---	4.5-7.3	0
SrC:					
Skerry, very bouldery	0-2	10-190	---	1.8-4.4	0
	2-4	---	0.5-30	3.5-6.5	0
	4-5	---	0.1-15	3.5-6.5	0
	5-9	---	0.5-30	3.5-6.5	0
	9-15	---	0.5-15	3.5-6.5	0
	15-26	1.0-20	---	3.5-6.5	0
	26-38	1.0-20	---	3.5-6.5	0
	38-72	0.1-15	---	4.5-7.3	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
StA:					
Stafford	0-10	2.0-15	---	4.5-7.3	0
	10-20	1.0-10	---	3.5-6.5	0
	20-32	1.0-10	---	3.5-7.3	0
	32-72	0.0-5.0	---	5.1-7.3	0
SuA:					
Sun	0-3	50-200	---	4.5-7.3	0
	3-11	5.0-25	---	5.1-7.3	0
	11-15	3.0-20	---	5.6-7.3	0
	15-25	3.0-20	---	5.6-7.3	0
	25-40	3.0-20	---	5.6-7.3	0
	40-54	1.0-10	---	6.6-8.4	0-25
	54-72	1.0-10	---	6.6-8.4	0-25
TaA:					
Tahawus, very bouldery	0-2	50-200	---	3.5-5.5	0
	2-5	50-200	---	3.5-5.5	0
	5-9	50-200	---	3.5-5.5	0
	9-17	1.0-20	---	4.5-6.5	0
	17-24	0.1-15	---	5.6-7.3	0
	24-72	0.1-15	---	5.6-7.3	0
TeA:					
Typic Endoaquolls, very stony	0-10	5.0-25	---	6.1-7.3	0
	10-15	3.0-20	---	6.1-7.8	0
	15-24	3.0-20	---	6.1-7.8	0
	24-72	1.0-10	---	6.1-8.4	1-10
ToA:					
Tonawanda	0-9	5.0-20	---	5.1-7.3	0
	9-14	1.0-10	---	5.1-7.3	0
	14-22	1.0-10	---	5.1-7.3	0
	22-72	0.1-5.0	---	5.6-7.8	0
TuC:					
Tunbridge, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
Lyman, very rocky, very bouldery	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
TuD:					
Tunbridge, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0
TuF:					
Tunbridge, very rocky, very bouldery	0-1	10-190	---	1.8-4.4	0
	1-3	10-190	---	1.8-4.4	0
	3-4	---	0.1-15	3.5-6.0	0
	4-7	---	0.5-30	3.5-6.0	0
	7-13	---	0.5-30	3.5-6.0	0
	13-18	---	0.5-15	3.5-6.0	0
	18-27	---	0.1-10	5.1-6.5	0
	27-72	---	---	---	0
Lyman, very rocky, very bouldery-------	0-0	10-190	---	1.8-4.4	0
	0-1	10-190	---	1.8-4.4	0
	1-2	10-190	---	1.8-4.4	0
	2-3	---	0.1-15	3.5-6.0	0
	3-9	---	0.5-15	3.5-6.0	0
	9-13	---	0.1-10	3.5-6.0	0
	13-18	---	0.1-10	3.5-6.0	0
	18-72	---	---	---	0
UlC:					
Udorthents-----------	0-2	5.0-25	---	5.1-8.4	0
	2-21	5.0-20	---	5.1-8.4	0-15
	21-72	5.0-20	---	5.1-8.4	0-15
UmF:					
Udorthents, Mine Spoil---------------	0-5	5.0-20	---	5.6-7.8	0
	5-9	0.1-10	---	5.6-7.3	0
	9-72	0.0-5.0	---	6.1-9.0	0-25
VeB:					
Vergennes------------	0-8	10-40	---	4.5-7.3	0
	8-10	10-40	---	4.5-7.3	0
	10-22	15-45	---	4.5-7.3	0
	22-29	10-35	---	5.6-7.8	0-15
	29-37	10-30	---	7.9-8.4	5-15
	37-45	10-30	---	7.9-8.4	5-15
	45-72	10-30	---	7.9-8.4	5-15

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
VeC:					
Vergennes	0-8	10-40	---	4.5-7.3	0
	8-10	10-40	---	4.5-7.3	0
	10-22	15-45	---	4.5-7.3	0
	22-29	10-35	---	5.6-7.8	0-15
	29-37	10-30	---	7.9-8.4	5-15
	37-45	10-30	---	7.9-8.4	5-15
	45-72	10-30	---	7.9-8.4	5-15
VeD:					
Vergennes	0-8	10-40	---	4.5-7.3	0
	8-10	10-40	---	4.5-7.3	0
	10-22	15-45	---	4.5-7.3	0
	22-29	10-35	---	5.6-7.8	0-15
	29-37	10-30	---	7.9-8.4	5-15
	37-45	10-30	---	7.9-8.4	5-15
	45-72	10-30	---	7.9-8.4	5-15
VeE:					
Vergennes	0-8	10-40	---	4.5-7.3	0
	8-10	10-40	---	4.5-7.3	0
	10-22	15-45	---	4.5-7.3	0
	22-29	10-35	---	5.6-7.8	0-15
	29-37	10-30	---	7.9-8.4	5-15
	37-45	10-30	---	7.9-8.4	5-15
	45-72	10-30	---	7.9-8.4	5-15
W:					
Water	---	---	---	---	---
WeA:					
Wegatchie	0-8	5.0-25	---	5.6-7.3	0
	8-13	5.0-20	---	6.1-7.8	0-1
	13-19	5.0-20	---	6.1-7.8	0-1
	19-40	5.0-20	---	6.1-7.8	0-1
	40-72	5.0-20	---	6.6-8.4	1-10
WlA:					
Whallonsburg	0-2	50-200	---	4.5-7.3	0
	2-12	50-200	---	4.5-7.3	0
	12-20	50-200	---	4.5-7.3	0
	20-23	50-200	---	4.5-7.3	0
	23-30	5.0-20	---	5.1-8.4	0-15
	30-72	5.0-20	---	5.1-8.4	0-15
WnA:					
Windsor	0-10	2.0-15	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-19	1.0-10	---	4.5-6.5	0
	19-24	1.0-10	---	4.5-6.5	0
	24-72	0.0-5.0	---	4.5-7.3	0
WnB:					
Windsor	0-10	2.0-15	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-19	1.0-10	---	4.5-6.5	0
	19-24	1.0-10	---	4.5-6.5	0
	24-72	0.0-5.0	---	4.5-7.3	0

Table 21.—Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
WnC:					
Windsor--------------	0-10	2.0-15	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-19	1.0-10	---	4.5-6.5	0
	19-24	1.0-10	---	4.5-6.5	0
	24-72	0.0-5.0	---	4.5-7.3	0
WnD:					
Windsor--------------	0-10	2.0-15	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-19	1.0-10	---	4.5-6.5	0
	19-24	1.0-10	---	4.5-6.5	0
	24-72	0.0-5.0	---	4.5-7.3	0
WnE:					
Windsor--------------	0-10	2.0-15	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-19	1.0-10	---	4.5-6.5	0
	19-24	1.0-10	---	4.5-6.5	0
	24-72	0.0-5.0	---	4.5-7.3	0
WoA:					
Wonsqueak------------	0-12	50-200	---	4.0-6.5	0
	12-25	50-200	---	4.0-6.5	0
	25-29	1.0-20	---	6.6-7.8	0-10
	29-72	1.0-20	---	6.6-7.8	0-10

Table 22.—Water Features

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of
flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the fea
a concern or that data were not estimated.)

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
10A:									
Pleasant Lake-------------	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---
Burnt Vly-----------------	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---
13A:									
Burnt Vly-----------------	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Rumney-------------------	B/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	Brief
			February	0.0-1.0	>6.0	---	---	None	Brief
			March	0.0-1.0	>6.0	---	---	None	Brief
			April	0.0-1.0	>6.0	---	---	None	Brief
			May	0.0-1.0	>6.0	---	---	None	Brief
			June	0.0-1.0	>6.0	---	---	None	Brief
			September	0.0-1.0	>6.0	---	---	None	---
			October	0.0-1.0	>6.0	---	---	None	---
			November	0.0-1.0	>6.0	---	---	None	Brief
			December	0.0-1.0	>6.0	---	---	None	Brief
Pleasant Lake-------------	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---
29C:									
Burnt Vly-----------------	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
Colton	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Rumney	B/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	Brief
			February	0.0-1.0	>6.0	---	---	None	Brief
			March	0.0-1.0	>6.0	---	---	None	Brief
			April	0.0-1.0	>6.0	---	---	None	Brief
			May	0.0-1.0	>6.0	---	---	None	Brief
			June	0.0-1.0	>6.0	---	---	None	Brief
			September	0.0-1.0	>6.0	---	---	None	---
			October	0.0-1.0	>6.0	---	---	None	---
			November	0.0-1.0	>6.0	---	---	None	Brief
			December	0.0-1.0	>6.0	---	---	None	Brief
113A:									
Ondawa	A	Very low							
			January	---	---	---	---	None	Brief
			February	---	---	---	---	None	Brief
			March	---	---	---	---	None	Brief
			April	---	---	---	---	None	Brief
			May	---	---	---	---	None	Brief
			November	---	---	---	---	None	Brief
			December	---	---	---	---	None	Brief
Rumney	B/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	Brief
			February	0.0-1.0	>6.0	---	---	None	Brief
			March	0.0-1.0	>6.0	---	---	None	Brief
			April	0.0-1.0	>6.0	---	---	None	Brief
			May	0.0-1.0	>6.0	---	---	None	Brief
			June	0.0-1.0	>6.0	---	---	None	Brief
			September	0.0-1.0	>6.0	---	---	None	---
			October	0.0-1.0	>6.0	---	---	None	---
			November	0.0-1.0	>6.0	---	---	None	Brief
			December	0.0-1.0	>6.0	---	---	None	Brief

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
123A:									
Lovewell	B/D	Low							
			January	1.5-3.0	>6.0	---	---	None	Brief
			February	1.5-3.0	>6.0	---	---	None	Brief
			March	1.5-3.0	>6.0	---	---	None	Brief
			April	1.5-3.0	>6.0	---	---	None	Brief
			May	1.5-3.0	>6.0	---	---	None	Brief
			November	1.5-3.0	>6.0	---	---	None	Brief
			December	1.5-3.0	>6.0	---	---	None	Brief
Cornish	B/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	Brief
			February	0.5-1.5	>6.0	---	---	None	Brief
			March	0.5-1.5	>6.0	---	---	None	Brief
			April	0.5-1.5	>6.0	---	---	None	Brief
			May	0.5-1.5	>6.0	---	---	None	Brief
			October	0.5-1.5	>6.0	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	Brief
			December	0.5-1.5	>6.0	---	---	None	Brief
350B:									
Duxbury, very stony	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
363A:									
Adams	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
363B:									
Adams	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
363D:									
Adams	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
363F:									
Adams	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
365A:									
Naumburg------------------	A/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	>6.0	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---
Croghan-------------------	A/D	Very low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
367A:									
Searsport-----------------	B/D	Negligible							
			January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0-1.0	>6.0	---	---	---	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F
									Duratio
				Ft	Ft	Ft			
Haplosaprists-------------	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---
Naumburg------------------	A/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	>6.0	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---
375A:									
Colton--------------------	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Adams--------------------	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
375C:									
Colton-------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Adams--------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
375D:									
Colton	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Adams	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
375F:									
Colton	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
Adams---------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
649C:									
Monadnock, rocky, very bouldery-----------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tunbridge, rocky, very bouldery-----------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Fl[illegible]: Duration
				Ft	Ft	Ft			
Tahawus, very bouldery----	B/D	Negligible							
			January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0-1.0	>6.0	---	---	---	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
650C:									
Monadnock, bouldery-------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Adams---------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Colton--------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
650D:									
Monadnock, bouldery-------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Adams---------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
Colton-------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
651D:									
Monadnock, rocky, very bouldery-----------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tunbridge, rocky, very bouldery-----------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
653C:									
Monadnock, very bouldery--	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
653D:									
Monadnock, very bouldery--	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
655B:									
Sunapee, very bouldery----	B	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
Monadnock, very bouldery--	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
657C:									
Monadnock, very bouldery--	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tahawus, very bouldery----	B/D	Negligible							
			January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0-1.0	>6.0	---	---	---	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
657D:									
Monadnock, very bouldery--	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tahawus, very bouldery----	B/D	Negligible							
			January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0-1.0	>6.0	---	---	---	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
661C:									
Hermon, very bouldery-----	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F…: Duratio…
				Ft	Ft	Ft			
661D:									
Hermon, very bouldery-----	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
661F:									
Hermon, very bouldery-----	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
705B:									
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	---
			February	0.5-1.5	1.7-3.2	---	---	None	---
			March	0.5-1.5	1.7-3.2	---	---	None	---
			April	0.5-1.5	1.7-3.2	---	---	None	---
			May	0.5-1.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.7-3.2	---	---	None	---
			November	0.5-1.5	1.7-3.2	---	---	None	---
			December	0.5-1.5	1.7-3.2	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Tahawus, very bouldery----	B/D	Negligible							
			January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0-1.0	>6.0	---	---	---	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
721C:									
Becket, rocky, very bouldery-----------------	B	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tunbridge, rocky, very bouldery-----------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Skerry, rocky, very bouldery	B/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	---
			February	1.5-2.5	1.7-3.2	---	---	None	---
			March	1.5-2.5	1.7-3.2	---	---	None	---
			April	1.5-2.5	1.7-3.2	---	---	None	---
			May	1.5-2.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	1.7-3.2	---	---	None	---
			December	1.5-2.5	1.7-3.2	---	---	None	---
721D:									
Becket, rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tunbridge, rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
721F:									
Becket, rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tunbridge, rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
723C:									
Becket, very bouldery	B	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F[illegible]: Duratio[illegible]
				Ft	Ft	Ft			
723D:									
Becket, very bouldery-----	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
723F:									
Becket, very bouldery-----	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
725B:									
Skerry, very bouldery-----	B/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	---
			February	1.5-2.5	1.7-3.2	---	---	None	---
			March	1.5-2.5	1.7-3.2	---	---	None	---
			April	1.5-2.5	1.7-3.2	---	---	None	---
			May	1.5-2.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	1.7-3.2	---	---	None	---
			December	1.5-2.5	1.7-3.2	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Becket, very bouldery-----	B	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
727B:									
Skerry, very bouldery-----	B/D	Low							
			January	1.5-2.5	1.7-3.2	---	---	None	---
			February	1.5-2.5	1.7-3.2	---	---	None	---
			March	1.5-2.5	1.7-3.2	---	---	None	---
			April	1.5-2.5	1.7-3.2	---	---	None	---
			May	1.5-2.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	1.7-3.2	---	---	None	---
			December	1.5-2.5	1.7-3.2	---	---	None	---
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	---
			February	0.5-1.5	1.7-3.2	---	---	None	---
			March	0.5-1.5	1.7-3.2	---	---	None	---
			April	0.5-1.5	1.7-3.2	---	---	None	---
			May	0.5-1.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.7-3.2	---	---	None	---
			November	0.5-1.5	1.7-3.2	---	---	None	---
			December	0.5-1.5	1.7-3.2	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table Upper limit	Water table Lower limit	Ponding Surface water depth	Ponding Duration	Ponding Frequency	F... Duratio...
				Ft	Ft	Ft			
831C:									
Tunbridge, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Lyman, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
831D:									
Tunbridge, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F...: Duratio...
				Ft	Ft	Ft			
Lyman, very rocky, very bouldery----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
831F:									
Tunbridge, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Lyman, very rocky, very bouldery----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
833C:									
Tunbridge, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Adirondack, very rocky, very bouldery------------	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	---
			February	0.5-1.5	1.7-3.2	---	---	None	---
			March	0.5-1.5	1.7-3.2	---	---	None	---
			April	0.5-1.5	1.7-3.2	---	---	None	---
			May	0.5-1.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.7-3.2	---	---	None	---
			November	0.5-1.5	1.7-3.2	---	---	None	---
			December	0.5-1.5	1.7-3.2	---	---	None	---
Lyman, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
851D:									
Lyman, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Knob Lock, very rocky, very bouldery------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
851F:									
Lyman, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
Knob Lock, very rocky, very bouldery------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
881F:									
Rock outcrop, very bouldery-----------------	---	Very high							
			Jan-Dec	---	---	---	---	---	---
Knob Lock, very rocky, very bouldery------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Lyman, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F[illegible]: Duratio[illegible]
				Ft	Ft	Ft			
930C:									
Mundalite, rocky, very bouldery	C	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.1-3.3	2.1-3.3	---	---	None	---
			April	2.1-3.3	2.1-3.3	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Rawsonville, rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Ampersand, rocky, very bouldery	B/D	Very high							
			January	0.5-1.5	1.7-3.3	---	---	None	---
			February	0.5-1.5	1.7-3.3	---	---	None	---
			March	0.5-1.5	1.7-3.3	---	---	None	---
			April	0.5-1.5	1.7-3.3	---	---	None	---
			May	0.5-1.5	1.7-3.3	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.7-3.3	---	---	None	---
			November	0.5-1.5	1.7-3.3	---	---	None	---
			December	0.5-1.5	1.7-3.3	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
931D:									
Mundalite, rocky, very bouldery-----------------	C	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.1-3.3	2.1-3.3	---	---	None	---
			April	2.1-3.3	2.1-3.3	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Rawsonville, rocky, very bouldery-----------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
931F:									
Mundalite, rocky, very bouldery-----------------	C	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.1-3.3	2.1-3.3	---	---	None	---
			April	2.1-3.3	2.1-3.3	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
Rawsonville, rocky, very bouldery----------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
932C:									
Mundalite, very bouldery--	C	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.1-3.3	2.1-3.3	---	---	None	---
			April	2.1-3.3	2.1-3.3	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Ampersand, very bouldery--	B/D	Very high							
			January	0.5-1.5	1.7-3.3	---	---	None	---
			February	0.5-1.5	1.7-3.3	---	---	None	---
			March	0.5-1.5	1.7-3.3	---	---	None	---
			April	0.5-1.5	1.7-3.3	---	---	None	---
			May	0.5-1.5	1.7-3.3	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.7-3.3	---	---	None	---
			November	0.5-1.5	1.7-3.3	---	---	None	---
			December	0.5-1.5	1.7-3.3	---	---	None	---

Table 22.—Water Features—Continued

				Water table		Ponding			F
Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
932D:									
Mundalite, very bouldery--	C	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.1-3.3	2.1-3.3	---	---	None	---
			April	2.1-3.3	2.1-3.3	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Ampersand, very bouldery--	B/D	Very high							
			January	0.5-1.5	1.7-3.3	---	---	None	---
			February	0.5-1.5	1.7-3.3	---	---	None	---
			March	0.5-1.5	1.7-3.3	---	---	None	---
			April	0.5-1.5	1.7-3.3	---	---	None	---
			May	0.5-1.5	1.7-3.3	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.7-3.3	---	---	None	---
			November	0.5-1.5	1.7-3.3	---	---	None	---
			December	0.5-1.5	1.7-3.3	---	---	None	---
934C:									
Ampersand, very bouldery--	B/D	Very high							
			January	0.5-1.5	1.7-3.3	---	---	None	---
			February	0.5-1.5	1.7-3.3	---	---	None	---
			March	0.5-1.5	1.7-3.3	---	---	None	---
			April	0.5-1.5	1.7-3.3	---	---	None	---
			May	0.5-1.5	1.7-3.3	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.7-3.3	---	---	None	---
			November	0.5-1.5	1.7-3.3	---	---	None	---
			December	0.5-1.5	1.7-3.3	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Wilmington, very bouldery-	D	Very high							
			January	0.0-1.0	0.8-1.7	---	---	None	---
			February	0.0-1.0	0.8-1.7	---	---	None	---
			March	0.0-1.0	0.8-1.7	---	---	None	---
			April	0.0-1.0	0.8-1.7	---	---	None	---
			May	0.0-1.0	0.8-1.7	---	---	None	---
			June	0.0-1.0	0.8-1.7	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	0.0-1.0	0.8-1.7	---	---	None	---
			October	0.0-1.0	0.8-1.7	---	---	None	---
			November	0.0-1.0	0.8-1.7	---	---	None	---
			December	0.0-1.0	0.8-1.7	---	---	None	---
941C:									
Rawsonville, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Hogback, very rocky, very bouldery----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
941D:									
Rawsonville, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Hogback, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
941F:									
Rawsonville, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
Hogback, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
944D:									
Hogback, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Knob Lock, very rocky, very bouldery------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F[illegible]: Duratio[illegible]
				Ft	Ft	Ft			
944F:									
Hogback, very rocky, very bouldery----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Knob Lock, very rocky, very bouldery------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
948F:									
Rock outcrop, very bouldery----------------	---	Very high							
			Jan-Dec	---	---	---	---	---	---
Knob Lock, very bouldery--	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Hogback, very bouldery----	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
971D:									
Esther, rocky, very bouldery-----------------	B	High							
			January	2.0-3.0	2.2-3.7	---	---	None	---
			February	2.0-3.0	2.2-3.7	---	---	None	---
			March	2.0-3.0	2.2-3.7	---	---	None	---
			April	2.0-3.0	2.2-3.7	---	---	None	---
			May	2.0-3.0	2.2-3.7	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	2.0-3.0	2.2-3.7	---	---	None	---
			December	2.0-3.0	2.2-3.7	---	---	None	---
Wallface, rocky, very bouldery-----------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
975C:									
Andic Cryaquods, very bouldery-----------------	B/D	Very high							
			January	1.0-2.0	2.2-3.7	---	---	None	---
			February	1.0-2.0	2.2-3.7	---	---	None	---
			March	1.0-2.0	2.2-3.7	---	---	None	---
			April	1.0-2.0	2.2-3.7	---	---	None	---
			May	1.0-2.0	2.2-3.7	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	1.0-2.0	2.2-3.7	---	---	None	---
			November	1.0-2.0	2.2-3.7	---	---	None	---
			December	1.0-2.0	2.2-3.7	---	---	None	---
Esther, very bouldery-----	B	Medium							
			January	2.0-3.0	2.2-3.7	---	---	None	---
			February	2.0-3.0	2.2-3.7	---	---	None	---
			March	2.0-3.0	2.2-3.7	---	---	None	---
			April	2.0-3.0	2.2-3.7	---	---	None	---
			May	2.0-3.0	2.2-3.7	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	2.0-3.0	2.2-3.7	---	---	None	---
			December	2.0-3.0	2.2-3.7	---	---	None	---
975D:									
Esther, very bouldery-----	B	High							
			January	2.0-3.0	2.2-3.7	---	---	None	---
			February	2.0-3.0	2.2-3.7	---	---	None	---
			March	2.0-3.0	2.2-3.7	---	---	None	---
			April	2.0-3.0	2.2-3.7	---	---	None	---
			May	2.0-3.0	2.2-3.7	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	2.0-3.0	2.2-3.7	---	---	None	---
			December	2.0-3.0	2.2-3.7	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F... Duratio...
				Ft	Ft	Ft			
Andic Cryaquods, very bouldery	B/D	Very high							
			January	1.0-2.0	2.2-3.7	---	---	None	---
			February	1.0-2.0	2.2-3.7	---	---	None	---
			March	1.0-2.0	2.2-3.7	---	---	None	---
			April	1.0-2.0	2.2-3.7	---	---	None	---
			May	1.0-2.0	2.2-3.7	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	1.0-2.0	2.2-3.7	---	---	None	---
			November	1.0-2.0	2.2-3.7	---	---	None	---
			December	1.0-2.0	2.2-3.7	---	---	None	---
992D:									
Wallface, very rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Skylight, very rocky, very bouldery	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F[illegible]: Duration
				Ft	Ft	Ft			
993F:									
Santanoni, very rocky, very bouldery------------	A	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Skylight, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
995D:									
Ricker, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Couchsachraga, very rocky, very bouldery-----------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Skylight, very rocky, very bouldery----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
995F:									
Ricker, very rocky, very bouldery----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
Couchsachraga, very rocky, very bouldery------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Skylight, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
998F:									
Rock outcrop, very bouldery-----------------	---	Very high							
			Jan-Dec	---	---	---	---	---	---
Ricker, very bouldery-----	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
Skylight, very bouldery---	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
AdA:									
Adams---------------------	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
AdB:									
Adams---------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration
				Ft	Ft	Ft			
AdC:									
Adams---------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
AdD:									
Adams---------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
AdE:									
Adams---------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
AkA:									
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	---
			February	0.5-1.5	1.7-3.2	---	---	None	---
			March	0.5-1.5	1.7-3.2	---	---	None	---
			April	0.5-1.5	1.7-3.2	---	---	None	---
			May	0.5-1.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.7-3.2	---	---	None	---
			November	0.5-1.5	1.7-3.2	---	---	None	---
			December	0.5-1.5	1.7-3.2	---	---	None	---
AkB:									
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	---
			February	0.5-1.5	1.7-3.2	---	---	None	---
			March	0.5-1.5	1.7-3.2	---	---	None	---
			April	0.5-1.5	1.7-3.2	---	---	None	---
			May	0.5-1.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.7-3.2	---	---	None	---
			November	0.5-1.5	1.7-3.2	---	---	None	---
			December	0.5-1.5	1.7-3.2	---	---	None	---
AmB:									
Amenia--------------------	D	Very high							
			January	1.5-2.5	1.7-3.0	---	---	None	---
			February	1.5-2.5	1.7-3.0	---	---	None	---
			March	1.5-2.5	1.7-3.0	---	---	None	---
			April	1.5-2.5	1.7-3.0	---	---	None	---
			May	1.5-2.5	1.7-3.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	1.7-3.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
AmC:									
Amenia	D	Very high							
			January	1.5-2.5	1.7-3.0	---	---	None	---
			February	1.5-2.5	1.7-3.0	---	---	None	---
			March	1.5-2.5	1.7-3.0	---	---	None	---
			April	1.5-2.5	1.7-3.0	---	---	None	---
			May	1.5-2.5	1.7-3.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	1.7-3.0	---	---	None	---
BcB:									
Becket	B	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
BcC:									
Becket	B	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
BeB:									
Becket, very bouldery-----	B	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
BeC:									
Becket, very bouldery-----	B	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
BeD:									
Becket, very bouldery-----	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
BeF:									
Becket, very bouldery-----	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
BkC:									
Becket, rocky, very bouldery-----------------	B	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tunbridge, rocky, very bouldery-----------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
BkD:									
Becket, rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.0	2.0-3.0	---	---	None	---
			April	2.0-3.0	2.0-3.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tunbridge, rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
BoB:									
Bombay	B/D	Very high							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
BuA:									
Bucksport------------------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0-1.0	>6.0	---	---	---	---
			July	0.0-1.0	>6.0	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	---	---	---	---
			December	0.0-1.0	>6.0	---	---	---	---
BvA:									
Burnt Vly------------------	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---
CaA:									
Catden---------------------	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Very long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Very long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Very long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Very long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Very long	Frequent	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F... Duratio...
				Ft	Ft	Ft			
CbA:									
Colton, very bouldery-----	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CbB:									
Colton, very bouldery-----	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CbC:									
Colton, very bouldery-----	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
CbD:									
Colton, very bouldery-----	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CgB:									
Cayuga--------------------	C/D	Very high							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
CgC:									
Cayuga--------------------	C/D	Very high							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
ChB:									
Champlain-----------------	A	Negligible							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
ChC:									
Champlain-----------------	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
ChD:									
Champlain-----------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
ChE:									
Champlain	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CkA:									
Charles	A/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	Brief
			February	0.0-1.0	>6.0	---	---	None	Brief
			March	0.0-1.0	>6.0	---	---	None	Brief
			April	0.0-1.0	>6.0	---	---	None	Brief
			May	0.0-1.0	>6.0	---	---	None	Brief
			June	0.0-1.0	>6.0	---	---	None	Brief
			September	0.0-1.0	>6.0	---	---	None	---
			October	0.0-1.0	>6.0	---	---	None	---
			November	0.0-1.0	>6.0	---	---	None	Brief
			December	0.0-1.0	>6.0	---	---	None	Brief
ClB:									
Charlton	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
ClC:									
Charlton------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
ClD:									
Charlton------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CnC:									
Charlton, rocky, very stony--------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Chatfield, rocky, very stony--------------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CnD:									
Charlton, rocky, very stony--------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Chatfield, rocky, very stony--------------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
CoB:									
Chatfield, very rocky, very stony	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Hollis, very rocky, very stony	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CoC:									
Chatfield, very rocky, very stony	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F[...]: Duratio[...]
				Ft	Ft	Ft			
Hollis, very rocky, very stony	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CoD:									
Chatfield, very rocky, very stony	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Hollis, very rocky, very stony	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
CoF:									
Chatfield, very rocky, very stony	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Hollis, very rocky, very stony	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CpB:									
Churchville	C/D	Very high							
			January	0.5-1.5	1.7-3.3	---	---	None	---
			February	0.5-1.5	1.7-3.3	---	---	None	---
			March	0.5-1.5	1.7-3.3	---	---	None	---
			April	0.5-1.5	1.7-3.3	---	---	None	---
			May	0.5-1.5	1.7-3.3	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	1.7-3.3	---	---	None	---
			December	0.5-1.5	1.7-3.3	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
CqA:									
Claverack	C/D	Low							
			January	1.5-2.5	1.7-3.3	---	---	None	---
			February	1.5-2.5	1.7-3.3	---	---	None	---
			March	1.5-2.5	1.7-3.3	---	---	None	---
			April	1.5-2.5	1.7-3.3	---	---	None	---
			May	1.5-2.5	1.7-3.3	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	1.7-3.3	---	---	None	---
CqB:									
Claverack	C/D	Medium							
			January	1.5-2.5	1.7-3.3	---	---	None	---
			February	1.5-2.5	1.7-3.3	---	---	None	---
			March	1.5-2.5	1.7-3.3	---	---	None	---
			April	1.5-2.5	1.7-3.3	---	---	None	---
			May	1.5-2.5	1.7-3.3	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	1.7-3.3	---	---	None	---
CrB:									
Collamer	C/D	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
CsA:									
Colton---------------------	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CsB:									
Colton---------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CsC:									
Colton---------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
CsD:									
Colton--------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CsE:									
Colton--------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
CtA:									
Cornish-------------------	B/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	Brief
			February	0.5-1.5	>6.0	---	---	None	Brief
			March	0.5-1.5	>6.0	---	---	None	Brief
			April	0.5-1.5	>6.0	---	---	None	Brief
			May	0.5-1.5	>6.0	---	---	None	Brief
			October	0.5-1.5	>6.0	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	Brief
			December	0.5-1.5	>6.0	---	---	None	Brief

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
CuA:									
Cosad---------------------	C/D	Very high							
			January	0.5-1.5	1.5-3.3	---	---	None	---
			February	0.5-1.5	1.5-3.3	---	---	None	---
			March	0.5-1.5	1.5-3.3	---	---	None	---
			April	0.5-1.5	1.5-3.3	---	---	None	---
			May	0.5-1.5	1.5-3.3	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	1.5-3.3	---	---	None	---
			December	0.5-1.5	1.5-3.3	---	---	None	---
CuB:									
Cosad---------------------	C/D	Very high							
			January	0.5-1.5	1.5-3.3	---	---	None	---
			February	0.5-1.5	1.5-3.3	---	---	None	---
			March	0.5-1.5	1.5-3.3	---	---	None	---
			April	0.5-1.5	1.5-3.3	---	---	None	---
			May	0.5-1.5	1.5-3.3	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	1.5-3.3	---	---	None	---
			December	0.5-1.5	1.5-3.3	---	---	None	---
CvA:									
Covington-----------------	D	Very high							
			January	0.0-1.0	>6.0	---	---	None	---
			February	0.0-1.0	>6.0	---	---	None	---
			March	0.0-1.0	>6.0	---	---	None	---
			April	0.0-1.0	>6.0	---	---	None	---
			May	0.0-1.0	>6.0	---	---	None	---
			June	0.0-1.0	>6.0	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.0-1.0	>6.0	---	---	None	---
			November	0.0-1.0	>6.0	---	---	None	---
			December	0.0-1.0	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table Upper limit	Water table Lower limit	Ponding Surface water depth	Ponding Duration	Ponding Frequency	F Duratio
				Ft	Ft	Ft			
CwA:									
Croghan-------------------	A/D	Very low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
CwB:									
Croghan-------------------	A/D	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
DeA:									
Deerfield-----------------	A/D	Negligible							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
DeB:									
Deerfield-----------------	A/D	Very low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
DpC:									
Depeyster-----------------	C/D	Very high							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
DpD:									
Depeyster-----------------	C/D	Very high							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
DuC:									
Dunkirk-------------------	C	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
DuD:									
Dunkirk-------------------	C	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
DuE:									
Dunkirk-------------------	C	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
DxB:									
Duxbury------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
ElB:									
Elmridge-----------------	C/D	Very low							
			January	1.5-2.5	1.7-3.3	---	---	None	---
			February	1.5-2.5	1.7-3.3	---	---	None	---
			March	1.5-2.5	1.7-3.3	---	---	None	---
			April	1.5-2.5	1.7-3.3	---	---	None	---
			May	1.5-2.5	1.7-3.3	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	1.7-3.3	---	---	None	---
FaD:									
Farmington, very rocky, very stony---------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
FcB:									
Factoryville--------------	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.3	>6.0	---	---	None	---
			April	2.0-3.3	>6.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Colonie, calcareous substratum---------------	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
FcC:									
Factoryville--------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.3	>6.0	---	---	None	---
			April	2.0-3.3	>6.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Colonie, calcareous substratum	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
FcD: Factoryville	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.3	>6.0	---	---	None	---
			April	2.0-3.3	>6.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Colonie, calcareous substratum	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			Fl[illegible]
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration
				Ft	Ft	Ft			
FdF:									
Factoryville	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.3	>6.0	---	---	None	---
			April	2.0-3.3	>6.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Dunkirk	C	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
FgB:									
Farmington, very rocky, very stony	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
Galway, very rocky, very stony-------------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
FkF:									
Farmington, very stony----	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Rock outcrop, very stony--	---	Very high							
			Jan-Dec	---	---	---	---	---	---
FnB:									
Fernlake, very bouldery---	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
FnC:									
Fernlake, very bouldery---	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
FnD:									
Fernlake, very bouldery---	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
FnF:									
Fernlake, very bouldery---	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
FrB:									
Factoryville-------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.0-3.3	>6.0	---	---	None	---
			April	2.0-3.3	>6.0	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
FuA:									
Fluvaquents, frequently flooded-----------------	A/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	Long
			February	0.5-1.5	>6.0	---	---	None	Long
			March	0.5-1.5	>6.0	---	---	None	Long
			April	0.5-1.5	>6.0	---	---	None	Long
			May	0.5-1.5	>6.0	---	---	None	Long
			June	---	---	---	---	None	Long
			July	---	---	---	---	None	Long
			September	---	---	---	---	None	Long
			October	0.5-1.5	>6.0	---	---	None	Long
			November	0.5-1.5	>6.0	---	---	None	Long
			December	0.5-1.5	>6.0	---	---	None	Long
Udifluvents, frequently flooded-----------------	A	Very low							
			January	---	---	---	---	None	Long
			February	---	---	---	---	None	Long
			March	---	---	---	---	None	Long
			April	---	---	---	---	None	Long
			May	---	---	---	---	None	Long
			June	---	---	---	---	None	Long
			July	---	---	---	---	None	Long
			September	---	---	---	---	None	Long
			October	---	---	---	---	None	Long
			November	---	---	---	---	None	Long
			December	---	---	---	---	None	Long

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
GeB:									
Georgia-------------------	A/D	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
GeC:									
Georgia-------------------	A/D	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
GoA:									
Gougeville----------------	A/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	---
			February	0.0-1.0	>6.0	---	---	None	---
			March	0.0-1.0	>6.0	---	---	None	---
			April	0.0-1.0	>6.0	---	---	None	---
			May	0.0-1.0	>6.0	---	---	None	---
			June	0.0-1.0	>6.0	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.0-1.0	>6.0	---	---	None	---
			November	0.0-1.0	>6.0	---	---	None	---
			December	0.0-1.0	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
HaB:									
Hailesboro----------------	C/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	>6.0	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---
HcB:									
Howard--------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
HcC:									
Howard--------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
HcD:									
Howard-------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
HdB:									
Hartland-----------------	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
HgB:									
Howard-------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
HlB:									
Howard-------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
HlC:									
Howard-------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
HmB:									
Howard-------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F[illegible]: Duratio[illegible]
				Ft	Ft	Ft			
HnC:									
Hermon, very bouldery	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
HnD:									
Hermon, very bouldery	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
HrF:									
Hogback, very rocky, very bouldery	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F Duratio
				Ft	Ft	Ft			
Knob Lock, very rocky, very bouldery-----------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
HsD:									
Hollis, very stony--------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Rock outcrop, very stony--	---	Very high							
			Jan-Dec	---	---	---	---	---	---
HsF:									
Hollis, very stony--------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
Rock outcrop, very stony--	---	Very high							
			Jan-Dec	---	---	---	---	---	---
KaB:									
Kalurah------------------	A/D	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
KaC:									
Kalurah------------------	A/D	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
KgB:									
Kalurah, very stony-------	A/D	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
KgC:									
Kalurah, very stony	A/D	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
KyA:									
Kingsbury	D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---
KyB:									
Kingsbury	D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
LnA:									
Livingston----------------	C/D	Negligible							
			January	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	---
			February	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	---
			March	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	---
			April	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	---
			May	0.0-1.0	>6.0	---	---	---	---
			June	0.0-1.0	>6.0	---	---	---	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	---	---	---	---
			December	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	---
LvA:									
Lovewell------------------	B/D	Low							
			January	1.5-3.0	>6.0	---	---	None	Brief
			February	1.5-3.0	>6.0	---	---	None	Brief
			March	1.5-3.0	>6.0	---	---	None	Brief
			April	1.5-3.0	>6.0	---	---	None	Brief
			May	1.5-3.0	>6.0	---	---	None	Brief
			November	1.5-3.0	>6.0	---	---	None	Brief
			December	1.5-3.0	>6.0	---	---	None	Brief
LyD:									
Lyman, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Knob Lock, very rocky, very bouldery	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
LyF:									
Lyman, very rocky, very bouldery	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Knob Lock, very rocky, very bouldery	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
MaB:									
Malone--------------------	B/D	Very high							
			January	0.5-1.5	1.5-3.2	---	---	None	---
			February	0.5-1.5	1.5-3.2	---	---	None	---
			March	0.5-1.5	1.5-3.2	---	---	None	---
			April	0.5-1.5	1.5-3.2	---	---	None	---
			May	0.5-1.5	1.5-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.5-3.2	---	---	None	---
			November	0.5-1.5	1.5-3.2	---	---	None	---
			December	0.5-1.5	1.5-3.2	---	---	None	---
MbB:									
Malone, very stony--------	B/D	Very high							
			January	0.5-1.5	1.5-3.2	---	---	None	---
			February	0.5-1.5	1.5-3.2	---	---	None	---
			March	0.5-1.5	1.5-3.2	---	---	None	---
			April	0.5-1.5	1.5-3.2	---	---	None	---
			May	0.5-1.5	1.5-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	1.5-3.2	---	---	None	---
			November	0.5-1.5	1.5-3.2	---	---	None	---
			December	0.5-1.5	1.5-3.2	---	---	None	---
McA:									
Massena-------------------	A/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration
				Ft	Ft	Ft			
McB:									
Massena-------------------	A/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---
MdA:									
Medomak-------------------	B/D	Negligible							
			January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief
			February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief
			March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief
			April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief
			May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief
			June	0.0-1.0	>6.0	---	---	---	Brief
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief
			December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief
MhB:									
Monadnock-----------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F... Duratio...
				Ft	Ft	Ft			
MhC:									
Monadnock-----------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
MkB:									
Monadnock, very bouldery--	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
MkC:									
Monadnock, very bouldery--	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
MkD:									
Monadnock, very bouldery--	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
MkF:									
Monadnock, very bouldery--	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
MmF:									
Monadnock, bouldery-------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
Adams-------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
MnC:									
Monadnock, rocky, very bouldery----------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tunbridge, rocky, very bouldery----------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
MnD:									
Monadnock, rocky, very bouldery	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Tunbridge, rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
MnF:									
Monadnock, rocky, very bouldery	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F... Duratio...
				Ft	Ft	Ft			
Tunbridge, rocky, very bouldery-----------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
MoA: Mooers--------------------	A/D	Very low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
MuC: Mundalite, very bouldery--	C	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.1-3.3	2.1-3.3	---	---	None	---
			April	2.1-3.3	2.1-3.3	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
MuD:									
Mundalite, very bouldery--	C	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.1-3.3	2.1-3.3	---	---	None	---
			April	2.1-3.3	2.1-3.3	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
MwC:									
Mundalite, rocky, very bouldery-----------------	C	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.1-3.3	2.1-3.3	---	---	None	---
			April	2.1-3.3	2.1-3.3	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Rawsonville, rocky, very bouldery-----------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
MwD:									
Mundalite, rocky, very bouldery	C	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	2.1-3.3	2.1-3.3	---	---	None	---
			April	2.1-3.3	2.1-3.3	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Rawsonville, rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
NaA:									
Naumburg	A/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	>6.0	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
NeB:									
Nellis	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
NeC:									
Nellis	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
NeD:									
Nellis	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
NgA:									
Niagara-------------------	C/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---
NgB:									
Niagara-------------------	C/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---
NvB:									
Nicholville---------------	A/D	Very high							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
OmA:									
Occum--------------------	A	Very low							
			January	---	---	---	---	None	Brief
			February	---	---	---	---	None	Brief
			March	---	---	---	---	None	Brief
			April	---	---	---	---	None	Brief
			May	---	---	---	---	None	Brief
			November	---	---	---	---	None	Brief
			December	---	---	---	---	None	Brief
OwA:									
Ondawa-------------------	A	Very low							
			January	---	---	---	---	None	Brief
			February	---	---	---	---	None	Brief
			March	---	---	---	---	None	Brief
			April	---	---	---	---	None	Brief
			May	---	---	---	---	None	Brief
			November	---	---	---	---	None	Brief
			December	---	---	---	---	None	Brief
Pc:									
Pits, quarry--------------	---	Very high							
			Jan-Dec	---	---	---	---	---	---
Pd:									
Pits, sand and gravel-----	---	Negligible							
			Jan-Dec	---	---	---	---	---	---
PfB:									
Pittsfield----------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
PfC:									
Pittsfield----------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
PfD:									
Pittsfield----------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
PfE:									
Pittsfield----------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F[looding]: Duratio[n]
				Ft	Ft	Ft			
PkA:									
Pleasant Lake-------------	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---
PlB:									
Pittsfield, rocky, very stony--------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Chatfield, rocky, very stony--------------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
PlC:									
Pittsfield, rocky, very stony	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Chatfield, rocky, very stony	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
PlD:									
Pittsfield, rocky, very stony	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
Chatfield, rocky, very stony	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
PlF:									
Pittsfield, rocky, very stony	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Chatfield, rocky, very stony	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
PoA:									
Podunk-------------------	A/D	Very high							
			January	1.5-2.5	>6.0	---	---	None	Brief
			February	1.5-2.5	>6.0	---	---	None	Brief
			March	1.5-2.5	>6.0	---	---	None	Brief
			April	1.5-2.5	>6.0	---	---	None	Brief
			May	1.5-2.5	>6.0	---	---	None	Brief
			November	1.5-2.5	>6.0	---	---	None	Brief
			December	1.5-2.5	>6.0	---	---	None	Brief
PrA:									
Pootatuck----------------	A/D	Very low							
			January	1.5-2.5	>6.0	---	---	None	Brief
			February	1.5-2.5	>6.0	---	---	None	Brief
			March	1.5-2.5	>6.0	---	---	None	Brief
			April	1.5-2.5	>6.0	---	---	None	Brief
			May	1.5-2.5	>6.0	---	---	None	Brief
			November	---	---	---	---	None	Brief
			December	1.5-2.5	>6.0	---	---	None	Brief
PtB:									
Pyrities-----------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
PtC:									
Pyrities-----------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
PtD:									
Pyrities------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
PuC:									
Pyrities, very stony-------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
PuD:									
Pyrities, very stony-------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
PwC:									
Pyrities, very stony------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Nehasne, very stony-------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
PwD:									
Pyrities, very stony------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
Nehasne, very stony-------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
PyC:									
Pyrities------------------	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Nehasne-------------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
PyD:									
Pyrities------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Nehasne-------------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
RaC:									
Rawsonville, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
Hogback, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
RaD:									
Rawsonville, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Hogback, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
RaF:									
Rawsonville, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Hogback, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
RmA:									
Rippowam------------------	A/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	Brief
			February	0.0-1.0	>6.0	---	---	None	Brief
			March	0.0-1.0	>6.0	---	---	None	Brief
			April	0.0-1.0	>6.0	---	---	None	Brief
			May	0.0-1.0	>6.0	---	---	None	Brief
			June	0.0-1.0	>6.0	---	---	None	Brief
			October	0.0-1.0	>6.0	---	---	None	---
			November	0.0-1.0	>6.0	---	---	None	Brief
			December	0.0-1.0	>6.0	---	---	None	Brief
RpF:									
Rock outcrop, very bouldery-----------------	---	Very high							
			Jan-Dec	---	---	---	---	---	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
Knob Lock, very rocky, very bouldery------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Lyman, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
RsA:									
Roundabout----------------	A/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.5-1.5	>6.0	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F... Duratio...
				Ft	Ft	Ft			
RuA:									
Rumney	B/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	Brief
			February	0.0-1.0	>6.0	---	---	None	Brief
			March	0.0-1.0	>6.0	---	---	None	Brief
			April	0.0-1.0	>6.0	---	---	None	Brief
			May	0.0-1.0	>6.0	---	---	None	Brief
			June	0.0-1.0	>6.0	---	---	None	Brief
			September	0.0-1.0	>6.0	---	---	None	---
			October	0.0-1.0	>6.0	---	---	None	---
			November	0.0-1.0	>6.0	---	---	None	Brief
			December	0.0-1.0	>6.0	---	---	None	Brief
RyA:									
Rumney	B/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	Brief
			February	0.0-1.0	>6.0	---	---	None	Brief
			March	0.0-1.0	>6.0	---	---	None	Brief
			April	0.0-1.0	>6.0	---	---	None	Brief
			May	0.0-1.0	>6.0	---	---	None	Brief
			June	0.0-1.0	>6.0	---	---	None	Brief
			September	0.0-1.0	>6.0	---	---	None	---
			October	0.0-1.0	>6.0	---	---	None	---
			November	0.0-1.0	>6.0	---	---	None	Brief
			December	0.0-1.0	>6.0	---	---	None	Brief
Burnt Vly	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F…
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio…
				Ft	Ft	Ft			
SeA:									
Searsport-----------------	B/D	Negligible							
			January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0-1.0	>6.0	---	---	---	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
SkB:									
Skerry--------------------	B/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	---
			February	1.5-2.5	1.7-3.2	---	---	None	---
			March	1.5-2.5	1.7-3.2	---	---	None	---
			April	1.5-2.5	1.7-3.2	---	---	None	---
			May	1.5-2.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	1.7-3.2	---	---	None	---
			December	1.5-2.5	1.7-3.2	---	---	None	---
SnB:									
Sunapee, very bouldery----	B	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F Duratio
				Ft	Ft	Ft			
SpB:									
Sunapee------------------	B	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	>6.0	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
SrB:									
Skerry, very bouldery-----	B/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	---
			February	1.5-2.5	1.7-3.2	---	---	None	---
			March	1.5-2.5	1.7-3.2	---	---	None	---
			April	1.5-2.5	1.7-3.2	---	---	None	---
			May	1.5-2.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	1.7-3.2	---	---	None	---
			December	1.5-2.5	1.7-3.2	---	---	None	---
SrC:									
Skerry, very bouldery-----	B/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	---
			February	1.5-2.5	1.7-3.2	---	---	None	---
			March	1.5-2.5	1.7-3.2	---	---	None	---
			April	1.5-2.5	1.7-3.2	---	---	None	---
			May	1.5-2.5	1.7-3.2	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	1.5-2.5	1.7-3.2	---	---	None	---
			December	1.5-2.5	1.7-3.2	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F... Duratio...
				Ft	Ft	Ft			
StA:									
Stafford------------------	A/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---
SuA:									
Sun-----------------------	A/D	Very high							
			January	0.0-1.0	1.7-3.3	---	---	None	---
			February	0.0-1.0	1.7-3.3	---	---	None	---
			March	0.0-1.0	1.7-3.3	---	---	None	---
			April	0.0-1.0	1.7-3.3	---	---	None	---
			May	0.0-1.0	1.7-3.3	---	---	None	---
			June	0.0-1.0	1.7-3.3	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	0.0-1.0	1.7-3.3	---	---	None	---
			November	0.0-1.0	1.7-3.3	---	---	None	---
			December	0.0-1.0	1.7-3.3	---	---	None	---
TaA:									
Tahawus, very bouldery----	B/D	Negligible							
			January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0-1.0	>6.0	---	---	---	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F... Duratio...
				Ft	Ft	Ft			
TeA:									
Typic Endoaquolls, very stony	B/D	Negligible							
			January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0-1.0	>6.0	---	---	---	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0-1.0	>6.0	---	---	---	---
			October	0.0-1.0	>6.0	---	---	---	---
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---
ToA:									
Tonawanda	A/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	---
			February	0.5-1.5	>6.0	---	---	None	---
			March	0.5-1.5	>6.0	---	---	None	---
			April	0.5-1.5	>6.0	---	---	None	---
			May	0.5-1.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	0.5-1.5	>6.0	---	---	None	---
			December	0.5-1.5	>6.0	---	---	None	---
TuC:									
Tunbridge, very rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
Lyman, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
TuD:									
Tunbridge, very rocky, very bouldery------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Lyman, very rocky, very bouldery-----------------	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
TuF:									
Tunbridge, very rocky, very bouldery	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Lyman, very rocky, very bouldery	D	Very high							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
UlC:									
Udorthents	C	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F: Duratio
				Ft	Ft	Ft			
UmF:									
Udorthents, mine spoil----	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
VeB:									
Vergennes-----------------	D	Low							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
VeC:									
Vergennes-----------------	D	Medium							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F... Duratio...
				Ft	Ft	Ft			
VeD:									
Vergennes	D	High							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
VeE:									
Vergennes	D	High							
			January	1.5-2.5	>6.0	---	---	None	---
			February	1.5-2.5	>6.0	---	---	None	---
			March	1.5-2.5	>6.0	---	---	None	---
			April	1.5-2.5	>6.0	---	---	None	---
			May	1.5-2.5	>6.0	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	1.5-2.5	>6.0	---	---	None	---
W:									
Water	---	---							
			Jan-Dec	---	---	---	---	---	---
WeA:									
Wegatchie	C/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	---
			February	0.0-1.0	>6.0	---	---	None	---
			March	0.0-1.0	>6.0	---	---	None	---
			April	0.0-1.0	>6.0	---	---	None	---
			May	0.0-1.0	>6.0	---	---	None	---
			June	0.0-1.0	>6.0	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	0.0-1.0	>6.0	---	---	None	---
			October	0.0-1.0	>6.0	---	---	None	---
			November	0.0-1.0	>6.0	---	---	None	---
			December	0.0-1.0	>6.0	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
WlA:									
Whallonsburg	C/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	---	---	---	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	---	---	---	---
			October	0.0	>6.0	---	---	---	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---
WnA:									
Windsor	A	Negligible							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
WnB:									
Windsor	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	F… Duratio…
				Ft	Ft	Ft			
WnC:									
Windsor	A	Very low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
WnD:									
Windsor	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
WnE:									
Windsor	A	Low							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 22.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			F
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duratio
				Ft	Ft	Ft			
WoA:									
Wonsqueak-----------------	B/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	---
			February	0.0	>6.0	0.0-1.0	Long	Frequent	---
			March	0.0	>6.0	0.0-1.0	Long	Frequent	---
			April	0.0	>6.0	0.0-1.0	Long	Frequent	---
			May	0.0	>6.0	0.0-1.0	Long	Frequent	---
			June	0.0	>6.0	0.0-1.0	Long	Frequent	---
			July	---	---	---	---	---	---
			August	---	---	---	---	---	---
			September	0.0	>6.0	0.0-1.0	Long	Frequent	---
			October	0.0	>6.0	0.0-1.0	Long	Frequent	---
			November	0.0	>6.0	0.0-1.0	Long	Frequent	---
			December	0.0	>6.0	0.0-1.0	Long	Frequent	---

Table 23.—Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a conce
data were not estimated.)

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoat steel
		In	In		In	In		
10A:								
Pleasant Lake----------	---	---	---	---	6-18	47-59	High	High
Burnt Vly--------------	---	---	---	---	6-18	47-59	High	High
13A:								
Burnt Vly--------------	---	---	---	---	6-18	47-59	High	High
Rumney-----------------	---	---	---	---	0	---	High	High
Pleasant Lake----------	---	---	---	---	6-18	47-59	High	High
29C:								
Burnt Vly--------------	---	---	---	---	6-18	47-59	High	High
Colton-----------------	---	---	---	---	0	---	Low	Moderate
Rumney-----------------	---	---	---	---	0	---	High	High
113A:								
Ondawa-----------------	---	---	---	---	0	---	Moderate	Low
Rumney-----------------	---	---	---	---	0	---	High	High
123A:								
Lovewell---------------	---	---	---	---	0	---	High	Moderate
Cornish----------------	---	---	---	---	0	---	High	High
350B:								
Duxbury, very stony----	---	---	---	---	0	---	Low	Moderate
363A:								
Adams------------------	---	---	---	---	0	---	Low	Moderate
363B:								
Adams------------------	---	---	---	---	0	---	Low	Moderate
363D:								
Adams------------------	---	---	---	---	0	---	Low	Moderate
363F:								
Adams------------------	---	---	---	---	0	---	Low	Moderate

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
365A:								
Naumburg	---	---	---	---	0	---	Moderate	Moderat
Croghan	---	---	---	---	0	---	Low	Moderat
367A:								
Searsport	---	---	---	---	0	---	Moderate	High
Haplosaprists	---	---	---	---	6-18	47-59	Moderate	High
Naumburg	---	---	---	---	0	---	Moderate	Moderat
375A:								
Colton	---	---	---	---	0	---	Low	Moderat
Adams	---	---	---	---	0	---	Low	Moderat
375C:								
Colton	---	---	---	---	0	---	Low	Moderat
Adams	---	---	---	---	0	---	Low	Moderat
375D:								
Colton	---	---	---	---	0	---	Low	Moderat
Adams	---	---	---	---	0	---	Low	Moderat
375F:								
Colton	---	---	---	---	0	---	Low	Moderat
Adams	---	---	---	---	0	---	Low	Moderat
649C:								
Monadnock, rocky, very bouldery	---	---	---	---	0	---	Moderate	Moderat
Tunbridge, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat
Tahawus, very bouldery	---	---	---	---	0	---	High	High
650C:								
Monadnock, bouldery	---	---	---	---	0	---	Moderate	Moderat
Adams	---	---	---	---	0	---	Low	Moderat
Colton	---	---	---	---	0	---	Low	Moderat

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Thickness	Restrictive layer: Hardness	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk: Uncoat steel
		In	In		In	In		
650D:								
Monadnock, bouldery----	---	---	---	---	0	---	Moderate	Moderate
Adams-----------------	---	---	---	---	0	---	Low	Moderate
Colton----------------	---	---	---	---	0	---	Low	Moderate
651D:								
Monadnock, rocky, very bouldery-------------	---	---	---	---	0	---	Moderate	Moderate
Tunbridge, rocky, very bouldery-------------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
653C:								
Monadnock, very bouldery-------------	---	---	---	---	0	---	Moderate	Moderate
653D:								
Monadnock, very bouldery-------------	---	---	---	---	0	---	Moderate	Moderate
655B:								
Sunapee, very bouldery-	---	---	---	---	0	---	Moderate	Moderate
Monadnock, very bouldery-------------	---	---	---	---	0	---	Moderate	Moderate
657C:								
Monadnock, very bouldery-------------	---	---	---	---	0	---	Moderate	Moderate
Tahawus, very bouldery-	---	---	---	---	0	---	High	High
657D:								
Monadnock, very bouldery-------------	---	---	---	---	0	---	Moderate	Moderate
Tahawus, very bouldery-	---	---	---	---	0	---	High	High
661C:								
Hermon, very bouldery--	---	---	---	---	0	---	Low	Moderate
661D:								
Hermon, very bouldery--	---	---	---	---	0	---	Low	Moderate

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoat steel
		In	In		In	In		
661F:								
Hermon, very bouldery--	---	---	---	---	0	---	Low	Moderate
705B:								
Adirondack, very bouldery-------------	Dense material	20-38	---	---	0	---	High	Moderate
Tahawus, very bouldery-	---	---	---	---	0	---	High	High
721C:								
Becket, rocky, very bouldery-------------	Dense material	26-36	---	---	0	---	Moderate	Moderate
Tunbridge, rocky, very bouldery-------------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
Skerry, rocky, very bouldery-------------	Dense material	20-38	---	---	0	---	Moderate	Moderate
721D:								
Becket, rocky, very bouldery-------------	Dense material	26-36	---	---	0	---	Moderate	Moderate
Tunbridge, rocky, very bouldery-------------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
721F:								
Becket, rocky, very bouldery-------------	Dense material	26-36	---	---	0	---	Moderate	Moderate
Tunbridge, rocky, very bouldery-------------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
723C:								
Becket, very bouldery--	Dense material	26-36	---	---	0	---	Moderate	Moderate
723D:								
Becket, very bouldery--	Dense material	26-36	---	---	0	---	Moderate	Moderate
723F:								
Becket, very bouldery--	Dense material	26-36	---	---	0	---	Moderate	Moderate
725B:								
Skerry, very bouldery--	Dense material	20-38	---	---	0	---	Moderate	Moderate
Becket, very bouldery--	Dense material	26-36	---	---	0	---	Moderate	Moderate

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoat steel
		In	In		In	In		
727B:								
Skerry, very bouldery--	Dense material	20-38	---	---	0	---	Moderate	Moderate
Adirondack, very bouldery--------------	Dense material	20-38	---	---	0	---	High	Moderate
831C:								
Tunbridge, very rocky, very bouldery---------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
Lyman, very rocky, very bouldery--------------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderate
831D:								
Tunbridge, very rocky, very bouldery---------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
Lyman, very rocky, very bouldery--------------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderate
831F:								
Tunbridge, very rocky, very bouldery---------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
Lyman, very rocky, very bouldery--------------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderate
833C:								
Tunbridge, very rocky, very bouldery---------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
Adirondack, very rocky, very bouldery---------	Dense material	20-38	---	---	0	---	High	Moderate
Lyman, very rocky, very bouldery--------------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderate
851D:								
Lyman, very rocky, very bouldery--------------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderate
Knob Lock, very rocky, very bouldery---------	Lithic bedrock	1-20	---	Indurated	0	---	Low	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
851F:								
Lyman, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat
Knob Lock, very rocky, very bouldery	Lithic bedrock	1-20	---	Indurated	0	---	Low	High
881F:								
Rock outcrop, very bouldery	Lithic bedrock	0-0	---	Indurated	0	---	None	---
Knob Lock, very rocky, very bouldery	Lithic bedrock	1-20	---	Indurated	0	---	Low	High
Lyman, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat
930C:								
Mundalite, rocky, very bouldery	Dense material	25-40	---	---	0	---	Moderate	Moderat
Rawsonville, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat
Ampersand, rocky, very bouldery	Dense material	20-40	---	---	0	---	High	Moderat
931D:								
Mundalite, rocky, very bouldery	Dense material	25-40	---	---	0	---	Moderate	Moderat
Rawsonville, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat
931F:								
Mundalite, rocky, very bouldery	Dense material	25-40	---	---	0	---	Moderate	Moderat
Rawsonville, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat
932C:								
Mundalite, very bouldery	Dense material	25-40	---	---	0	---	Moderate	Moderat
Ampersand, very bouldery	Dense material	20-40	---	---	0	---	High	Moderat

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
932D:								
Mundalite, very bouldery	Dense material	25-40	---	---	0	---	Moderate	Moderat
Ampersand, very bouldery	Dense material	20-40	---	---	0	---	High	Moderat
934C:								
Ampersand, very bouldery	Dense material	20-40	---	---	0	---	High	Moderat
Wilmington, very bouldery	Dense material	10-20	---	---	0	---	High	High
941C:								
Rawsonville, very rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat
Hogback, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat
941D:								
Rawsonville, very rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat
Hogback, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat
941F:								
Rawsonville, very rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat
Hogback, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat
944D:								
Hogback, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat
Knob Lock, very rocky, very bouldery	Lithic bedrock	1-20	---	Indurated	0	---	Low	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk[cut off]
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa[ted] stee[l]
		In	In		In	In		
944F:								
Hogback, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat[e]
Knob Lock, very rocky, very bouldery	Lithic bedrock	1-20	---	Indurated	0	---	Low	High
948F:								
Rock outcrop, very bouldery	Lithic bedrock	0-0	---	Indurated	0	---	None	---
Knob Lock, very bouldery	Lithic bedrock	1-20	---	Indurated	0	---	Low	High
Hogback, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat[e]
971D:								
Esther, rocky, very bouldery	Dense material	26-45	---	---	0	---	Moderate	Moderat[e]
Wallface, rocky, very bouldery	Lithic bedrock	26-45	---	Indurated	0	---	Moderate	High
975C:								
Andic Cryaquods, very bouldery	Dense material	26-45	---	---	0	---	High	Moderat[e]
Esther, very bouldery	Dense material	26-45	---	---	0	---	High	Moderat[e]
975D:								
Esther, very bouldery	Dense material	26-45	---	---	0	---	High	Moderat[e]
Andic Cryaquods, very bouldery	Dense material	26-45	---	---	0	---	High	Moderat[e]
992D:								
Wallface, very rocky, very bouldery	Lithic bedrock	26-45	---	Indurated	0	---	Moderate	High
Skylight, very rocky, very bouldery	Lithic bedrock	12-22	---	Indurated	0	---	Low	High
993F:								
Santanoni, very rocky, very bouldery	Lithic bedrock	22-42	---	Indurated	0	---	Low	High
Skylight, very rocky, very bouldery	Lithic bedrock	12-22	---	Indurated	0	---	Low	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoat steel
		In	In		In	In		
995D:								
Ricker, very rocky, very bouldery---------	Lithic bedrock	1-20	---	Indurated	0	---	Low	High
Couchsachraga, very rocky, very bouldery--	Lithic bedrock	6-12	---	Indurated	0	---	Low	High
Skylight, very rocky, very bouldery---------	Lithic bedrock	12-22	---	Indurated	0	---	Low	High
995F:								
Ricker, very rocky, very bouldery---------	Lithic bedrock	1-20	---	Indurated	0	---	Low	High
Couchsachraga, very rocky, very bouldery--	Lithic bedrock	6-12	---	Indurated	0	---	Low	High
Skylight, very rocky, very bouldery---------	Lithic bedrock	12-22	---	Indurated	0	---	Low	High
998F:								
Rock outcrop, very bouldery-------------	Lithic bedrock	0-0	---	Indurated	0	---	None	---
Ricker, very bouldery--	Lithic bedrock	1-20	---	Indurated	0	---	Low	High
Skylight, very bouldery	Lithic bedrock	12-22	---	Indurated	0	---	Low	High
AdA:								
Adams-----------------	---	---	---	---	0	---	Low	Moderat
AdB:								
Adams-----------------	---	---	---	---	0	---	Low	Moderat
AdC:								
Adams-----------------	---	---	---	---	0	---	Low	Moderat
AdD:								
Adams-----------------	---	---	---	---	0	---	Low	Moderat
AdE:								
Adams-----------------	---	---	---	---	0	---	Low	Moderat
AkA:								
Adirondack, very bouldery-------------	Dense material	20-38	---	---	0	---	High	Moderat

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
AkB:								
Adirondack, very bouldery	Dense material	20-38	---	---	0	---	High	Moderat
AmB:								
Amenia	Dense material	20-36	---	---	0	---	Moderate	Low
AmC:								
Amenia	Dense material	20-36	---	---	0	---	Moderate	Low
BcB:								
Becket	Dense material	26-36	---	---	0	---	Moderate	Moderat
BcC:								
Becket	Dense material	26-36	---	---	0	---	Moderate	Moderat
BeB:								
Becket, very bouldery	Dense material	26-36	---	---	0	---	Moderate	Moderat
BeC:								
Becket, very bouldery	Dense material	26-36	---	---	0	---	Moderate	Moderat
BeD:								
Becket, very bouldery	Dense material	26-36	---	---	0	---	Moderate	Moderat
BeF:								
Becket, very bouldery	Dense material	26-36	---	---	0	---	Moderate	Moderat
BkC:								
Becket, rocky, very bouldery	Dense material	26-36	---	---	0	---	Moderate	Moderat
Tunbridge, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat
BkD:								
Becket, rocky, very bouldery	Dense material	26-36	---	---	0	---	Moderate	Moderat
Tunbridge, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat
BoB:								
Bombay	---	---	---	---	0	---	Moderate	Moderat
BuA:								
Bucksport	---	---	---	---	6-18	47-59	High	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris[k of corrosion]
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa[ted] stee[l]
		In	In		In	In		
BvA: Burnt Vly	---	---	---	---	6-18	47-59	High	High
CaA: Catden	---	---	---	---	6-18	47-59	High	High
CbA: Colton, very bouldery	---	---	---	---	0	---	Low	Moderat[e]
CbB: Colton, very bouldery	---	---	---	---	0	---	Low	Moderat[e]
CbC: Colton, very bouldery	---	---	---	---	0	---	Low	Moderat[e]
CbD: Colton, very bouldery	---	---	---	---	0	---	Low	Moderat[e]
CgB: Cayuga	---	---	---	---	0	---	Moderate	High
CgC: Cayuga	---	---	---	---	0	---	Moderate	High
ChB: Champlain	---	---	---	---	0	---	Low	Low
ChC: Champlain	---	---	---	---	0	---	Low	Low
ChD: Champlain	---	---	---	---	0	---	Low	Low
ChE: Champlain	---	---	---	---	0	---	Low	Low
CkA: Charles	---	---	---	---	0	---	High	High
ClB: Charlton	---	---	---	---	0	---	Moderate	Low
ClC: Charlton	---	---	---	---	0	---	Low	Low
ClD: Charlton	---	---	---	---	0	---	Low	Low

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
CnC:								
Charlton, rocky, very stony	---	---	---	---	0	---	Low	Low
Chatfield, rocky, very stony	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
CnD:								
Charlton, rocky, very stony	---	---	---	---	0	---	Low	Low
Chatfield, rocky, very stony	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
CoB:								
Chatfield, very rocky, very stony	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
Hollis, very rocky, very stony	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Low
CoC:								
Chatfield, very rocky, very stony	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
Hollis, very rocky, very stony	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Low
CoD:								
Chatfield, very rocky, very stony	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
Hollis, very rocky, very stony	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Low
CoF:								
Chatfield, very rocky, very stony	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
Hollis, very rocky, very stony	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Low
CpB:								
Churchville	Dense material	20-40	---	---	0	---	High	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk…
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoat… stee…
		In	In		In	In		
CqA:								
Claverack	Strongly contrasting textural stratification	20-40	---	---	0	---	Moderate	High
CqB:								
Claverack	Strongly contrasting textural stratification	20-40	---	---	0	---	Moderate	High
CrB:								
Collamer	---	---	---	---	0	---	High	High
CsA:								
Colton	---	---	---	---	0	---	Low	Moderat…
CsB:								
Colton	---	---	---	---	0	---	Low	Moderat…
CsC:								
Colton	---	---	---	---	0	---	Low	Moderat…
CsD:								
Colton	---	---	---	---	0	---	Low	Moderat…
CsE:								
Colton	---	---	---	---	0	---	Low	Moderat…
CtA:								
Cornish	---	---	---	---	0	---	High	High
CuA:								
Cosad	Strongly contrasting textural stratification	18-40	---	---	0	---	Moderate	High
CuB:								
Cosad	Strongly contrasting textural stratification	18-40	---	---	0	---	Moderate	High
CvA:								
Covington	---	---	---	---	0	---	High	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
CwA:								
Croghan----------------	---	---	---	---	0	---	Low	Moderat
CwB:								
Croghan----------------	---	---	---	---	0	---	Low	Moderat
DeA:								
Deerfield--------------	---	---	---	---	0	---	Low	Low
DeB:								
Deerfield--------------	---	---	---	---	0	---	Low	Low
DpC:								
Depeyster--------------	---	---	---	---	0	---	High	High
DpD:								
Depeyster--------------	---	---	---	---	0	---	High	High
DuC:								
Dunkirk----------------	---	---	---	---	0	---	High	Low
DuD:								
Dunkirk----------------	---	---	---	---	0	---	High	Low
DuE:								
Dunkirk----------------	---	---	---	---	0	---	High	Low
DxB:								
Duxbury----------------	---	---	---	---	0	---	Low	Moderat
ElB:								
Elmridge---------------	Strongly contrasting textural stratification	18-40	---	---	0	---	Moderate	High
FaD:								
Farmington, very rocky, very stony------------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Low
FcB:								
Factoryville-----------	---	---	---	---	0	---	Low	Low
Colonie, calcareous substratum------------	---	---	---	---	0	---	Low	Low

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
FcC:								
Factoryville-----------	---	---	---	---	0	---	Low	Low
Colonie, calcareous substratum------------	---	---	---	---	0	---	Low	Low
FcD:								
Factoryville-----------	---	---	---	---	0	---	Low	Low
Colonie, calcareous substratum------------	---	---	---	---	0	---	Low	Low
FdF:								
Factoryville-----------	---	---	---	---	0	---	Low	Low
Dunkirk----------------	---	---	---	---	0	---	High	Low
FgB:								
Farmington, very rocky, very stony------------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Low
Galway, very rocky, very stony------------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
FkF:								
Farmington, very stony-	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Low
Rock outcrop, very stony-----------------	Lithic bedrock	0-0	---	Indurated	0	---	None	---
FnB:								
Fernlake, very bouldery	---	---	---	---	0	---	Low	Moderat
FnC:								
Fernlake, very bouldery	---	---	---	---	0	---	Low	Moderat
FnD:								
Fernlake, very bouldery	---	---	---	---	0	---	Low	Moderat
FnF:								
Fernlake, very bouldery	---	---	---	---	0	---	Low	Moderat
FrB:								
Factoryville-----------	---	---	---	---	0	---	Low	Low
FuA:								
Fluvaquents, frequently flooded---------------	---	---	---	---	0	---	High	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris[k of corrosion]
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa[ted] stee[l]
		In	In		In	In		
Udifluvents, frequently flooded	---	---	---	---	0	---	Moderate	Low
GeB:								
Georgia	---	---	---	---	0	---	Moderate	Low
GeC:								
Georgia	---	---	---	---	0	---	Moderate	Low
GoA:								
Gougeville	---	---	---	---	0	---	Moderate	High
HaB:								
Hailesboro	---	---	---	---	0	---	High	High
HcB:								
Howard	---	---	---	---	0	---	Moderate	Low
HcC:								
Howard	---	---	---	---	0	---	Moderate	Low
HcD:								
Howard	---	---	---	---	0	---	Moderate	Low
HdB:								
Hartland	---	---	---	---	0	---	High	Low
HgB:								
Howard	---	---	---	---	0	---	Moderate	Low
HlB:								
Howard	---	---	---	---	0	---	Moderate	Low
HlC:								
Howard	---	---	---	---	0	---	Moderate	Low
HmB:								
Howard	---	---	---	---	0	---	Moderate	Low
HnC:								
Hermon, very bouldery	---	---	---	---	0	---	Low	Moderat[e]
HnD:								
Hermon, very bouldery	---	---	---	---	0	---	Low	Moderat[e]
HrF:								
Hogback, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat[e]

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris[k]
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa[ted] stee[l]
		In	In		In	In		
Knob Lock, very rocky, very bouldery	Lithic bedrock	1-20	---	Indurated	0	---	Low	High
HsD:								
Hollis, very stony	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Low
Rock outcrop, very stony	Lithic bedrock	0-0	---	Indurated	0	---	None	---
HsF:								
Hollis, very stony	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Low
Rock outcrop, very stony	Lithic bedrock	0-0	---	Indurated	0	---	None	---
KaB:								
Kalurah	---	---	---	---	0	---	Moderate	Low
KaC:								
Kalurah	---	---	---	---	0	---	Moderate	Low
KgB:								
Kalurah, very stony	---	---	---	---	0	---	Moderate	Low
KgC:								
Kalurah, very stony	---	---	---	---	0	---	Moderate	Low
KyA:								
Kingsbury	---	---	---	---	0	---	High	High
KyB:								
Kingsbury	---	---	---	---	0	---	High	High
LnA:								
Livingston	---	---	---	---	0	---	High	High
LvA:								
Lovewell	---	---	---	---	0	---	High	Moderat[e]
LyD:								
Lyman, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat[e]
Knob Lock, very rocky, very bouldery	Lithic bedrock	1-20	---	Indurated	0	---	Low	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
LyF:								
Lyman, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat
Knob Lock, very rocky, very bouldery	Lithic bedrock	1-20	---	Indurated	0	---	Low	High
MaB:								
Malone	Dense material	18-38	---	---	0	---	High	Moderat
MbB:								
Malone, very stony	Dense material	18-38	---	---	0	---	High	Moderat
McA:								
Massena	---	---	---	---	0	---	High	Moderat
McB:								
Massena	---	---	---	---	0	---	High	Moderat
MdA:								
Medomak	---	---	---	---	0	---	High	High
MhB:								
Monadnock	---	---	---	---	0	---	Moderate	Moderat
MhC:								
Monadnock	---	---	---	---	0	---	Moderate	Moderat
MkB:								
Monadnock, very bouldery	---	---	---	---	0	---	Moderate	Moderat
MkC:								
Monadnock, very bouldery	---	---	---	---	0	---	Moderate	Moderat
MkD:								
Monadnock, very bouldery	---	---	---	---	0	---	Moderate	Moderat
MkF:								
Monadnock, very bouldery	---	---	---	---	0	---	Moderate	Moderat
MmF:								
Monadnock, bouldery	---	---	---	---	0	---	Moderate	Moderat
Adams	---	---	---	---	0	---	Low	Moderat

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoat steel
		In	In		In	In		
MnC:								
Monadnock, rocky, very bouldery	---	---	---	---	0	---	Moderate	Moderate
Tunbridge, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
MnD:								
Monadnock, rocky, very bouldery	---	---	---	---	0	---	Moderate	Moderate
Tunbridge, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
MnF:								
Monadnock, rocky, very bouldery	---	---	---	---	0	---	Moderate	Moderate
Tunbridge, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
MoA:								
Mooers	---	---	---	---	0	---	Low	Low
MuC:								
Mundalite, very bouldery	Dense material	25-40	---	---	0	---	Moderate	Moderate
MuD:								
Mundalite, very bouldery	Dense material	25-40	---	---	0	---	Moderate	Moderate
MwC:								
Mundalite, rocky, very bouldery	Dense material	25-40	---	---	0	---	Moderate	Moderate
Rawsonville, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
MwD:								
Mundalite, rocky, very bouldery	Dense material	25-40	---	---	0	---	Moderate	Moderate
Rawsonville, rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk (truncated)
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoat(ed) stee(l)
		In	In		In	In		
NaA: Naumburg	---	---	---	---	0	---	Moderate	Moderat(e)
NeB: Nellis	Dense material	60-72	---	---	0	---	Moderate	Low
NeC: Nellis	Dense material	60-72	---	---	0	---	Moderate	Low
NeD: Nellis	Dense material	60-72	---	---	0	---	Moderate	Low
NgA: Niagara	---	---	---	---	0	---	High	High
NgB: Niagara	---	---	---	---	0	---	High	High
NvB: Nicholville	---	---	---	---	0	---	High	Moderat(e)
OmA: Occum	---	---	---	---	0	---	Moderate	Low
OwA: Ondawa	---	---	---	---	0	---	Moderate	Low
Pc: Pits, quarry	Lithic bedrock	0-0	---	Indurated	0	---	None	---
Pd: Pits, sand and gravel	---	---	---	---	0	---	None	---
PfB: Pittsfield	---	---	---	---	0	---	Moderate	Low
PfC: Pittsfield	---	---	---	---	0	---	Moderate	Low
PfD: Pittsfield	---	---	---	---	0	---	Moderate	Low
PfE: Pittsfield	---	---	---	---	0	---	Moderate	Low
PkA: Pleasant Lake	---	---	---	---	6-18	47-59	High	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
PlB:								
Pittsfield, rocky, very stony	---	---	---	---	0	---	Moderate	Low
Chatfield, rocky, very stony	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
PlC:								
Pittsfield, rocky, very stony	---	---	---	---	0	---	Moderate	Low
Chatfield, rocky, very stony	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
PlD:								
Pittsfield, rocky, very stony	---	---	---	---	0	---	Moderate	Low
Chatfield, rocky, very stony	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
PlF:								
Pittsfield, rocky, very stony	---	---	---	---	0	---	Moderate	Low
Chatfield, rocky, very stony	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
PoA:								
Podunk	---	---	---	---	0	---	Moderate	Low
PrA:								
Pootatuck	---	---	---	---	0	---	Moderate	Low
PtB:								
Pyrities	---	---	---	---	0	---	Moderate	Low
PtC:								
Pyrities	---	---	---	---	0	---	Moderate	Low
PtD:								
Pyrities	---	---	---	---	0	---	Moderate	Low
PuC:								
Pyrities, very stony	---	---	---	---	0	---	Moderate	Low
PuD:								
Pyrities, very stony	---	---	---	---	0	---	Moderate	Low

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa steel
		In	In		In	In		
PwC:								
Pyrities, very stony---	---	---	---	---	0	---	Moderate	Low
Nehasne, very stony----	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
PwD:								
Pyrities, very stony---	---	---	---	---	0	---	Moderate	Low
Nehasne, very stony----	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
PyC:								
Pyrities---------------	---	---	---	---	0	---	Moderate	Low
Nehasne----------------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
PyD:								
Pyrities---------------	---	---	---	---	0	---	Moderate	Low
Nehasne----------------	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Low
RaC:								
Rawsonville, very rocky, very bouldery--	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
Hogback, very rocky, very bouldery---------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderate
RaD:								
Rawsonville, very rocky, very bouldery--	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
Hogback, very rocky, very bouldery---------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderate
RaF:								
Rawsonville, very rocky, very bouldery--	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderate
Hogback, very rocky, very bouldery---------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderate
RmA:								
Rippowam---------------	---	---	---	---	0	---	High	High
RpF:								
Rock outcrop, very bouldery--------------	Lithic bedrock	0-0	---	Indurated	0	---	None	---

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
Knob Lock, very rocky, very bouldery---------	Lithic bedrock	1-20	---	Indurated	0	---	Low	High
Lyman, very rocky, very bouldery--------------	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat
RsA:								
Roundabout-------------	---	---	---	---	0	---	High	High
RuA:								
Rumney-----------------	---	---	---	---	0	---	High	High
RyA:								
Rumney-----------------	---	---	---	---	0	---	High	High
Burnt Vly--------------	---	---	---	---	6-18	47-59	High	High
SeA:								
Searsport--------------	---	---	---	---	0	---	Moderate	High
SkB:								
Skerry-----------------	Dense material	20-38	---	---	0	---	Moderate	Moderat
SnB:								
Sunapee, very bouldery-	---	---	---	---	0	---	Moderate	Moderat
SpB:								
Sunapee----------------	---	---	---	---	0	---	Moderate	Moderat
SrB:								
Skerry, very bouldery--	Dense material	20-38	---	---	0	---	Moderate	Moderat
SrC:								
Skerry, very bouldery--	Dense material	20-38	---	---	0	---	Moderate	Moderat
StA:								
Stafford---------------	---	---	---	---	0	---	Moderate	Low
SuA:								
Sun--------------------	Dense material	20-40	---	---	0	---	High	High
TaA:								
Tahawus, very bouldery-	---	---	---	---	0	---	High	High
TeA:								
Typic Endoaquolls, very stony-----------------	---	---	---	---	0	---	High	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk[cut off]
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa[cut off] stee[cut off]
		In	In		In	In		
ToA:								
Tonawanda	---	---	---	---	0	---	High	High
TuC:								
Tunbridge, very rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat[cut off]
Lyman, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat[cut off]
TuD:								
Tunbridge, very rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat[cut off]
Lyman, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat[cut off]
TuF:								
Tunbridge, very rocky, very bouldery	Lithic bedrock	20-40	---	Indurated	0	---	Moderate	Moderat[cut off]
Lyman, very rocky, very bouldery	Lithic bedrock	10-20	---	Indurated	0	---	Moderate	Moderat[cut off]
UlC:								
Udorthents	---	---	---	---	0	---	Moderate	Moderat[cut off]
UmF:								
Udorthents, mine spoil	---	---	---	---	0	---	Low	Low
VeB:								
Vergennes	---	---	---	---	0	---	Moderate	High
VeC:								
Vergennes	---	---	---	---	0	---	Moderate	High
VeD:								
Vergennes	---	---	---	---	0	---	Moderate	High
VeE:								
Vergennes	---	---	---	---	0	---	Moderate	High
W:								
Water	---	---	---	---	---	---	---	---
WeA:								
Wegatchie	---	---	---	---	0	---	High	High

Table 23.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ris
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoa stee
		In	In		In	In		
WlA:								
Whallonsburg	Abrupt textural change	16-51	---	---	6-18	47-59	High	High
WnA:								
Windsor	---	---	---	---	0	---	Low	Low
WnB:								
Windsor	---	---	---	---	0	---	Low	Low
WnC:								
Windsor	---	---	---	---	0	---	Low	Low
WnD:								
Windsor	---	---	---	---	0	---	Low	Low
WnE:								
Windsor	---	---	---	---	0	---	Low	Low
WoA:								
Wonsqueak	---	---	---	---	6-18	47-59	High	High

Table 24.—Engineering Index Test Data

(LL means liquid limit; PI, plasticity index; MD, maximum dry density; OM, optimum moisture; LS, lineal shrinkage;
indicate that data were not available. These soils are the typical pedons for the series in Essex County, New

Soil name, report number, horizon, and depth in inches	Classification		Grain-size distribution											LL	PI	M d
			Percentage passing sieve--					Percentage smaller than--								
	AASHTO	Unified	>3 inches	2 inches	3/4 inch	3/8 inch	No. 4	No. 10	No. 40	No. 200	.02 mm	.005 mm	.002 mm			M
			Pct												Pct	Lb/ cu
Amenia fine sandy loam (S85NY31-04)																
AP------0 to 9	A-4 (0)	SM	---	98.2	94.7	92.1	89.5	87.2	78.6	43.1	21.2	11.9	5.9	NP	NP	110
Bw------9 to 14	A-4 (0)	SM	---	98.8	96.1	94.2	92.4	87.9	78.0	41.1	18.4	10.0	5.4	NP	NP	122
BC-----14 to 21	A-4 (0)	SM	---	100	96.2	94.5	93.3	91.0	82.5	44.7	22.9	13.1	7.9	17.7	2.4	123
Cd1----21 to 36	A-4 (0)	SM	---	97.5	89.8	86.6	83.4	78.4	67.9	37.4	17.2	7.9	4.4	14.1	0.4	129
Cd2----36 to 48	A-4 (0)	SM	---	100	93.2	89.0	84.0	78.6	67.9	34.7	13.4	6.4	3.4	NP	NP	133
Cd3----48 to 72	A-4 (0)	SM	---	98.7	94.6	90.2	87.1	82.8	72.5	39.8	17.1	7.8	4.6	11.6	1.6	135
Churchville loam (S85NY31-03)																
AP-------0 to 9	A-4 (3)	ML	100	98.7	96.2	94.6	93.2	91.6	85.4	60.8	40.8	27.6	15.2	31.8	7.6	99
Bt1------9 to 13	A-6 (9)	CL	100	100	100	100	99.9	99.4	96.4	83.3	64.9	55.1	42.0	32.9	11.7	100
Bt2-----13 to 25	A-7 (2)	CL	100	100	97.7	97.2	96.8	96.0	93.2	82.5	65.9	57.1	44.5	43.3	21.5	98
2Cd1----25 to 35	A-2-4 (0)	SM	100	94.7	82.8	77.3	73.9	69.9	60.8	35.1	17.3	10.9	7.1	17.4	2.7	128
2Cd2----35 to 48	A-2-4 (0)	SM	100	96.6	87.8	83.4	79.6	73.6	62.3	32.3	15.3	8.3	4.6	13.3	1.3	135
2Cd3----48 to 72	A-4 (0)	SM	100	97.5	91.8	87.6	83.5	78.9	67.9	37.3	18.3	9.8	5.4	13.2	1.7	136
Cosad loamy fine sand (S85NY31-01)																
AP-----0 to 12	A-2-4 (0)	SM	100	100	100	100	100	99.9	98.8	21.0	11.5	9.6	4.8	NP	NP	101
Bw1---12 to 18	A-2-4 (0)	SM	100	100	100	100	100	99.9	99.0	16.0	9.1	6.3	4.1	NP	NP	108
Bw2---18 to 23	A-2-4 (0)	SM	100	100	100	100	100	100	98.8	13.6	0	0	0	NP	NP	104
Bw3---23 to 25	A-4 (0)	SM	100	100	100	100	99.8	99.4	96.6	34.5	19.8	17.4	16.0	NP	NP	115
2BC---25 to 39	A-7-6(21)	ML	100	100	100	100	100	99.5	98.1	92.2	74.8	64.6	51.1	47.8	19.5	91
2C----39 to 72	A-7-6(26)	CH	100	100	100	100	99.7	98.8	98.1	96.5	85.3	72.9	53.3	50.0	23.8	92

Table 24.—Engineering Index Test Data—Continued

Soil name, report number, horizon, and depth in inches	Classification		Grain-size distribution											LL	PI	Mo de
			Percentage passing sieve--				Percentage smaller than--									MD
	AASHTO	Unified	>3 inches	2 inches	3/4 inch	3/8 inch	No. 4	No. 10	No. 40	No. 200	.02 mm	.005 mm	.002 mm			
			Pct												Pct	Lb/ cu f
Kingsbury silty clay loam (S85NY31-06)																
Ap------0 to 9	A-7-6(15)	ML	100	100	100	100	99.7	99.4	95.8	89.4	68.6	53.0	40.0	42.6	14.9	96
Bt1-----9 to 14	A-7-6(27)	CH	100	100	100	100	100	99.9	98.7	96.7	85.6	74.8	58.0	51.5	23.2	94
Bt2----14 to 21	A-7-6(42)	CH	100	100	100	100	99.9	99.9	99.7	99.4	92.1	80.3	63.2	64.1	35.0	92
CB-----21 to 34	A-7-6(25)	CH	100	100	100	100	99.6	98.6	97.3	95.3	84.1	68.6	49.8	49.7	22.6	98
C1-----34 to 65	A-7-6(25)	CL	100	100	100	100	99.6	98.9	97.5	94.9	83.1	68.7	52.8	47.6	22.9	97
C2-----65 to 93	A-7-6(23)	CL	100	100	100	100	99.9	99.2	97.9	93.8	87.2	62.3	47.9	44.9	22.7	100

Table 25.—Relationship between Soil Series, their Parent Material, Landscape Position, and Drainage

Nature of Parent Material	Excessively drained to well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	Soils from Glacial Till				
High lime, loamy, very deep, < 500 feet in elevation*	Nellis	Amenia Bombay	Massena	Sun	
Medium lime, loamy, very deep, < 500 feet in elevation*	Pittsfield	Georgia			
Low lime, loamy, very deep, < 500 feet in elevation*	Charlton				
High lime, loamy, moderately deep to limestone bedrock, < 500 feet in elevation*	Galway				
High lime, loamy, shallow to limestone bedrock, < 500 feet in elevation*	Farmington				
Low lime, loamy, moderately deep to meta-igneous bedrock, < 500 feet in elevation*	Chatfield				
Low lime, loamy, shallow to meta-igneous bedrock, < 500 feet in elevation*	Hollis				
Medium lime, loamy, very deep, Endoaquolls 500 to 2000 feet in elevation**	Pyrities	Kalurah	Malone		Typic
Medium lime, loamy, moderately deep to meta-igneous and marble bedrock, 500 to 2,000 feet in elevation**	Nehasne				
Low lime, loamy, very deep, 500 to 2,000 feet in elevation**	Becket	Skerry	Adirondack		Tahawus
Low lime, loamy over sandy or gravelly, very deep, 500 to 2,000 feet in elevation**	Monadnock	Sunapee			
Low lime, sandy gravels, very deep, 500 to 2,000 feet in elevation**	Hermon				
Low lime, sandy, very deep, 500 to 2,000 feet in elevation**	Fernlake				
Low lime, loamy, moderately deep to meta-igneous bedrock, 500 to 2,000 feet in elevation**	Tunbridge				
Low lime, loamy, shallow to meta-igneous bedrock, 500 to 2,000 feet in elevation**	Lyman				

See footnotes at end of table.

Table 25.—Relationship between Soil Series, their Parent Material, Landscape Position, and Drainage—Continued

Nature of Parent Material	Excessively drained to well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	Soils from Glacial Till				
Low lime, loamy, very deep, 2,000 to 3,000 feet in elevation**	Mundalite		Ampersand	Wilmington	
Low lime, loamy, moderately deep to meta-igneous bedrock, 2,000 to 3,000 feet in elevation**	Rawsonville				
Low lime, loamy, shallow to meta-igneous bedrock, 2,000 to 3,000 feet in elevation**	Hogback				
Low lime, loamy, very deep, > 3,000 feet in elevation***		Esther	Andic Cryaquods		
Low lime, loamy, moderately deep to meta-igneous bedrock, > 3,000 feet in elevation***	Wallface				
Low lime, sandy gravels, moderately deep to meta-igneous bedrock, > 3,000 feet in elevation***	Santanoni				
Low lime, sandy, shallow to meta-igneous bedrock, > 3,000 feet in elevation***	Skylight				
Low lime, sandy, very shallow to meta-igneous bedrock, > 3,000 feet in elevation***	Couchsachraga				
	Soils from Outwash Deposits				
High lime, sandy, very deep, < 500 feet in elevation*	Factoryville Colonie				
Low to high lime, sandy very deep, < 500 feet in elevation*	Windsor	Deerfield	Stafford	Gougeville	
High lime, sandy over clayey, very deep, < 500 feet in elevation*		Claverack	Cosad		
High lime, loamy gravels, very deep, < 500 feet in elevation*	Howard				
Low lime, sandy, very deep, 500 to 3,000 feet in elevation**	Adams Duxbury	Croghan	Naumburg		Searsport
Medium lime, sandy, very deep, 500 to 3,000 feet in elevation**	Champlain	Mooers			
Low lime, sandy gravels, very deep, 500 to 3,000 feet in elevation**	Colton				

See footnotes at end of table.

Table 25.—Relationship between Soil Series, their Parent Material, Landscape Position, and Drainage—Continued

Nature of Parent Material	Excessively drained to well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	Soils from Lacustrine or Marine Deposits				
High lime, very clayey, very deep, < 500 feet in elevation*		Vergennes	Kingsbury	Covington	Livingston
High lime, clayey over loamy, very deep, < 500 feet in elevation*		Cayuga	Churchville		
High lime, silty clays, very deep, < 500 feet in elevation*	Dunkirk	Collamer	Niagara		
Medium to high lime, silty, very deep, < 500 feet in elevation*	Hartland		Tonawanda		
High lime, loamy over clayey, very deep, < 500 feet in elevation*		Elmridge			
High lime, silty clays, very deep, 500 to 3,000 feet in elevation**		Depeyster	Hailesboro	Wegatchie	
Medium to low lime, silty, very deep, 500 to 3,000 feet in elevation**		Nicholville	Roundabout		
	Soils on Flood Plains				
Low to medium lime, loamy, very deep, < 500 feet in elevation*	Occum	Pootatuck		Rippowam	
Low to medium lime, loamy, very deep, 500 to 2,000 feet in elevation**	Ondawa	Podunk		Rumney	
Medium lime, silty, very deep, 500 to 2,000 feet in elevation**		Lovewell	Cornish	Charles	Medomak
Frequently flooded, undifferentiated, very deep, 90 to 2,000 feet in elevation*,**	Udifluvents	----------->	Fluvaquents	-----------	----------->
	Organic Soils				
Low lime, shallow or very shallow to meta-igneous bedrock, 500 to 3,000 feet in elevation**	Knob Lock				
Low lime, shallow or very shallow to meta-igneous bedrock, > 3,000 feet in elevation***	Ricker				
Medium to high lime, mucky, very deep to mineral, < 500 feet in elevation*					Catden
Medium to high lime, mucky over Whallonsburg clayey, < 500 feet in elevation*					
Medium to high lime, mucky, very deep to mineral, 500 to 3,000 feet in elevation**					Bucksport

See footnotes at end of table.

Table 25.—Relationship between Soil Series, their Parent Material, Landscape Position, and Drainage—Continued

Nature of Parent Material	Excessively drained to well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	Organic Soils				
Medium to high lime, mucky over loamy, 500 to 3,000 feet in elevation**					Wonsqueak
Low lime, mucky, very deep to mineral, 500 to 3,000 feet in elevation**					Pleasant Lake
Low lime, mucky over sandy, 500 to 3,000 feet in elevation**					Burnt Vly
Low lime, undifferentiated muck, 500 to 3,000 feet in elevation**					Haplosaprists
	Miscellaneous Soil Types				
	Udorthents				
	Udorthents, mine spoil				
	Pits, quarry				
	Pits, sand and gravel				

* This zone represents the mesic soil temperature area.
** This zone represents part or all of the frigid soil temperature area.
*** This zone represents the cryic soil temperature area.

Table 26.—Taxonomic Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series.)

Soil name	Family or higher taxonomic class
Adams	Sandy, isotic, frigid Typic Haplorthods
Adirondack	Coarse-loamy, isotic, frigid Typic Endoaquods
Amenia	Coarse-loamy, mixed, active, mesic Aquic Eutrudepts
Ampersand	Coarse-loamy, isotic, frigid Typic Epiaquods
Andic Cryaquods	Andic Cryaquods
Becket	Coarse-loamy, isotic, frigid Oxyaquic Haplorthods
Bombay	Coarse-loamy, mixed, active, mesic Oxyaquic Hapludalfs
Bucksport	Euic, frigid Typic Haplosaprists
Burnt Vly	Sandy or sandy-skeletal, mixed, dysic, frigid Terric Haplosaprists
Catden	Euic, mesic Typic Haplosaprists
Cayuga	Fine, illitic, mesic Oxyaquic Glossudalfs
Champlain	Mixed, frigid Typic Udipsamments
Charles	Coarse-silty, mixed, superactive, nonacid, frigid Aeric Fluvaquents
Charlton	Coarse-loamy, mixed, active, mesic Typic Dystrudepts
Chatfield	Coarse-loamy, mixed, superactive, mesic Typic Dystrudepts
Churchville	Fine, illitic, mesic Aeric Endoaqualfs
Claverack	Sandy over clayey, mixed, superactive, nonacid, mesic Aquic Udorthents
Collamer	Fine-silty, mixed, active, mesic Glossaquic Hapludalfs
Colonie	Mixed, mesic Lamellic Udipsamments
Colton	Sandy-skeletal, isotic, frigid Typic Haplorthods
Cornish	Coarse-silty, mixed, superactive, frigid Fluvaquentic Dystrudepts
*Cosad	Sandy over clayey, mixed, superactive, mesic Aquic Eutrudepts
Couchsachraga	Sandy, isotic Lithic Humicryods
Covington	Very-fine, mixed, active, mesic Mollic Endoaqualfs
Croghan	Sandy, isotic, frigid Aquic Haplorthods
Deerfield	Mixed, mesic Aquic Udipsamments
Depeyster	Fine-silty, mixed, active, frigid Aquic Glossudalfs
Dunkirk	Fine-silty, mixed, active, mesic Glossic Hapludalfs
Duxbury	Sandy, isotic, frigid Typic Haplorthods
Elmridge	Coarse-loamy over clayey, mixed, semiactive, mesic Aquic Dystric Eutrudepts
Esther	Medial, amorphic Aquandic Humicryods
Factoryville	Mixed, mesic Oxyaquic Udipsamments
Farmington	Loamy, mixed, active, mesic Lithic Eutrudepts
Fernlake	Sandy, isotic, frigid Entic Haplorthods
Fluvaquents	Fluvaquents
Galway	Coarse-loamy, mixed, superactive, mesic Typic Eutrudepts
Georgia	Coarse-loamy, mixed, semiactive, mesic Aquic Dystric Eutrudepts
Gougeville	Mixed, mesic Humaqueptic Psammaquents
Hailesboro	Fine-silty, mixed, superactive, frigid Aeric Endoaqualfs
Haplosaprists	Haplosaprists
Hartland	Coarse-silty, mixed, active, mesic Dystric Eutrudepts
Hermon	Sandy-skeletal, isotic, frigid Typic Haplorthods
Hogback	Loamy, isotic, frigid Lithic Haplohumods
Hollis	Loamy, mixed, active, mesic Lithic Dystrudepts
Howard	Loamy-skeletal, mixed, active, mesic Glossic Hapludalfs
Kalurah	Coarse-loamy, mixed, semiactive, frigid Aquic Dystric Eutrudepts
Kingsbury	Very-fine, mixed, active, mesic Aeric Endoaqualfs
Knob Lock	Dysic, frigid Lithic Udifolists
Livingston	Very-fine, mixed, active, nonacid, mesic Mollic Endoaquepts
Lovewell	Coarse-silty, mixed, superactive, frigid Fluvaquentic Dystrudepts
Lyman	Loamy, isotic, frigid Lithic Haplorthods
Malone	Coarse-loamy, mixed, active, nonacid, frigid Aeric Epiaquepts
Massena	Coarse-loamy, mixed, active, nonacid, mesic Aeric Endoaquepts
*Medomak	Coarse-silty, mixed, superactive, frigid Fluvaquentic Endoaquolls
Monadnock	Coarse-loamy over sandy or sandy-skeletal, isotic, frigid Typic Haplorthods
Mooers	Mixed, frigid Oxyaquic Udipsamments
Mundalite	Coarse-loamy, isotic, frigid Oxyaquic Haplorthods
Naumburg	Sandy, isotic, frigid Typic Endoaquods
Nehasne	Coarse-loamy, mixed, active, frigid Dystric Eutrudepts
Nellis	Coarse-loamy, mixed, superactive, mesic Typic Eutrudepts
Niagara	Fine-silty, mixed, active, mesic Aeric Endoaqualfs
Nicholville	Coarse-silty, isotic, frigid Aquic Haplorthods

Table 26.—Taxonomic Classification of the Soils—Continued

Soil name	Family or higher taxonomic class
Occum	Coarse-loamy, mixed, superactive, mesic Fluventic Dystrudepts
Ondawa	Coarse-loamy, mixed, active, frigid Fluventic Dystrudepts
Pittsfield	Coarse-loamy, mixed, active, mesic Dystric Eutrudepts
Pleasant Lake	Dysic, frigid Typic Haplosaprists
Podunk	Coarse-loamy, mixed, active, frigid Fluvaquentic Dystrudepts
Pootatuck	Coarse-loamy, mixed, active, mesic Fluvaquentic Dystrudepts
Pyrities	Coarse-loamy, mixed, active, frigid Dystric Eutrudepts
Rawsonville	Coarse-loamy, isotic, frigid Typic Haplohumods
Ricker	Dysic Lithic Cryofolists
*Rippowam	Coarse-loamy, mixed, superactive, nonacid, mesic Aeric Fluvaquents
Roundabout	Coarse-silty, mixed, active, nonacid, frigid Aeric Epiaquepts
Rumney	Coarse-loamy, mixed, active, nonacid, frigid Fluvaquentic Endoaquepts
Santanoni	Sandy-skeletal, isotic Typic Humicryods
Searsport	Sandy, mixed, frigid Histic Humaquepts
Skerry	Coarse-loamy, isotic, frigid Aquic Haplorthods
Skylight	Sandy, isotic Lithic Humicryods
Stafford	Mixed, mesic Typic Psammaquents
Sun	Coarse-loamy, mixed, active, nonacid, mesic Aeric Epiaquepts
Sunapee	Coarse-loamy, isotic, frigid Aquic Haplorthods
Tahawus	Sandy, mixed, frigid Histic Humaquepts
Tonawanda	Coarse-silty, mixed, active, nonacid, mesic Aeric Endoaquepts
Tunbridge	Coarse-loamy, isotic, frigid Typic Haplorthods
Typic Endoaquolls	Typic Endoaquolls
Udifluvents	Udifluvents
Udorthents	Udorthents
Udorthents, mine spoil	Udorthents
Vergennes	Very-fine, mixed, active, mesic Glossaquic Hapludalfs
Wallface	Medial, amorphic Andic Humicryods
Wegatchie	Fine-silty, mixed, active, nonacid, frigid Mollic Endoaquepts
Whallonsburg	Clayey, mixed, euic, mesic Terric Haplosaprists
Wilmington	Loamy, isotic, frigid, shallow Typic Endoaquods
Windsor	Mixed, mesic Typic Udipsamments
Wonsqueak	Loamy, mixed, euic, frigid Terric Haplosaprists

NRCS Accessibility Statement

The Natural Resources Conservation Service (NRCS) is committed to making its information accessible to all of its customers and employees. If you are experiencing accessibility issues and need assistance, please contact our Helpdesk by phone at 1-800-457-3642 or by e-mail at ServiceDesk-FTC@ftc.usda.gov. For assistance with publications that include maps, graphs, or similar forms of information, you may also wish to contact our State or local office. You can locate the correct office and phone number at http://offices.sc.egov.usda.gov/locator/app.

INDEX TO MAP SHEETS
ESSEX COUNTY, NEW YORK

MILES
KILOMETERS
SCALE = 1:195000

OL	NAME
	Niagara silt loam, 0 to 3 percent slopes
	Niagara silt loam, 3 to 8 percent slopes
	Nicholville silt loam, 3 to 8 percent slopes
	Occum fine sandy loam, 0 to 3 percent slopes
	Ondawa sandy loam, 0 to 3 percent slopes
	Pits, quarry
	Pits, sand and gravel
	Pittsfield loam, 3 to 8 percent slopes
	Pittsfield loam, 8 to 15 percent slopes
	Pittsfield loam, 15 to 25 percent slopes
	Pittsfield loam, 25 to 45 percent slopes
	Pleasant Lake peat, 0 to 2 percent slopes
	Pittsfield-Chatfield complex, 3 to 8 percent slopes, rocky, very stony
	Pittsfield-Chatfield complex, 8 to 15 percent slopes, rocky, very stony
	Pittsfield-Chatfield complex, 15 to 35 percent slopes, rocky, very stony
	Pittsfield-Chatfield complex, 35 to 60 percent slopes, rocky, very stony
	Podunk very fine sandy loam, 0 to 3 percent slopes
	Pootatuck fine sandy loam, 0 to 3 percent slopes
	Pyrities fine sandy loam, 3 to 8 percent slopes
	Pyrities fine sandy loam, 8 to 15 percent slopes
	Pyrities fine sandy loam, 15 to 25 percent slopes
	Pyrities fine sandy loam, 8 to 15 percent slopes, very stony
	Pyrities fine sandy loam, 15 to 35 percent slopes, very stony
	Pyrities-Nehasne complex, 8 to 15 percent slopes, rocky, very stony
	Pyrities-Nehasne complex, 15 to 35 percent slopes, rocky, very stony
	Pyrities-Nehasne complex, 8 to 15 percent slopes, rocky
	Pyrities-Nehasne complex, 15 to 25 percent slopes, rocky
	Rawsonville-Hogback complex, 8 to 15 percent slopes, very rocky, very bouldery
	Rawsonville-Hogback complex, 15 to 35 percent slopes, very rocky, very bouldery
	Rawsonville-Hogback complex, 35 to 60 percent slopes, very rocky, very bouldery
	Rippowam fine sandy loam, 0 to 3 percent slopes
	Rock outcrop-Knob Lock-Lyman complex, 35 to 60 percent slopes, very bouldery
	Roundabout silt loam, 0 to 3 percent slopes
	Rumney loam, 0 to 3 percent slopes
	Rumney-Burnt Vly complex, 0 to 3 percent slopes
	Searsport peat, 0 to 3 percent slopes
	Skerry loam, 3 to 8 percent slopes
	Sunapee fine sandy loam, 3 to 8 percent slopes, very bouldery
	Sunapee fine sandy loam, 3 to 8 percent slopes
	Skerry loam, 3 to 8 percent slopes, very bouldery
	Skerry loam, 8 to 15 percent slopes, very bouldery
	Stafford fine sandy loam, 0 to 3 percent slopes
	Sun silt loam, 0 to 3 percent slopes
	Tahawus peat, 0 to 5 percent slopes, very bouldery
	Typic Endoaquolls, nearly level, very stony
	Tonawanda silt loam, 0 to 3 percent slopes
	Tunbridge-Lyman complex, 8 to 15 percent slopes, very rocky, very bouldery
	Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery
	Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky, very bouldery
	Udorthents, nearly level through strongly sloping
	Udorthents, mine spoil, nearly level through very steep
	Vergennes silty clay loam, 3 to 8 percent slopes
	Vergennes silty clay loam, 8 to 15 percent slopes
	Vergennes silty clay loam, 15 to 25 percent slopes
	Vergennes silty clay loam, 25 to 45 percent slopes
	Water
	Wegatchie silt loam, 0 to 3 percent slopes
	Whallonsburg mucky peat, 0 to 2 percent slopes
	Windsor loamy sand, 0 to 3 percent slopes
	Windsor loamy sand, 3 to 8 percent slopes
	Windsor loamy sand, 8 to 15 percent slopes
	Windsor loamy sand, 15 to 25 percent slopes
	Windsor loamy sand, 25 to 45 percent slopes
	Wonsqueak muck, 0 to 2 percent slopes

FEATURE AND SYMBOL LEGEND FOR SOIL SURVEY

CULTURAL FEATURES

BOUNDARIES

- National, state, or province
- County or parish
- Minor civil division
- Limit of soil survey (label) and/or denied access area
- Field sheet matchline and neatline

HYDROGRAPHIC FEATURES

STREAMS

Perennial stream, double line	
Perennial stream, single line	Label only
Intermittent stream	Label only
Drainage end	Label only
Spring	

SOIL SURVEY FEATURES

SOIL DELINEATIONS AND SYMBOLS 10A 13A

LANDFORM FEATURES

- Bedrock escarpment
- Other than bedrock escarpment
- Short steep slope
- Gully

MISCELLANEOUS SURFACE FEATURES

- Clay spot
- Gravel pit
- Gravelly spot
- Marsh or swamp
- Mine or quarry
- Rock outcrop
- Sandy spot
- Stony spot
- Very stony spot
- Wet spot

Joins sheet 9 Port Douglas

Joins sheet 8 Clintonville

Joins sheet 10 Juniper Island

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

INDEX TO ADJOINING 7.5 MAPS

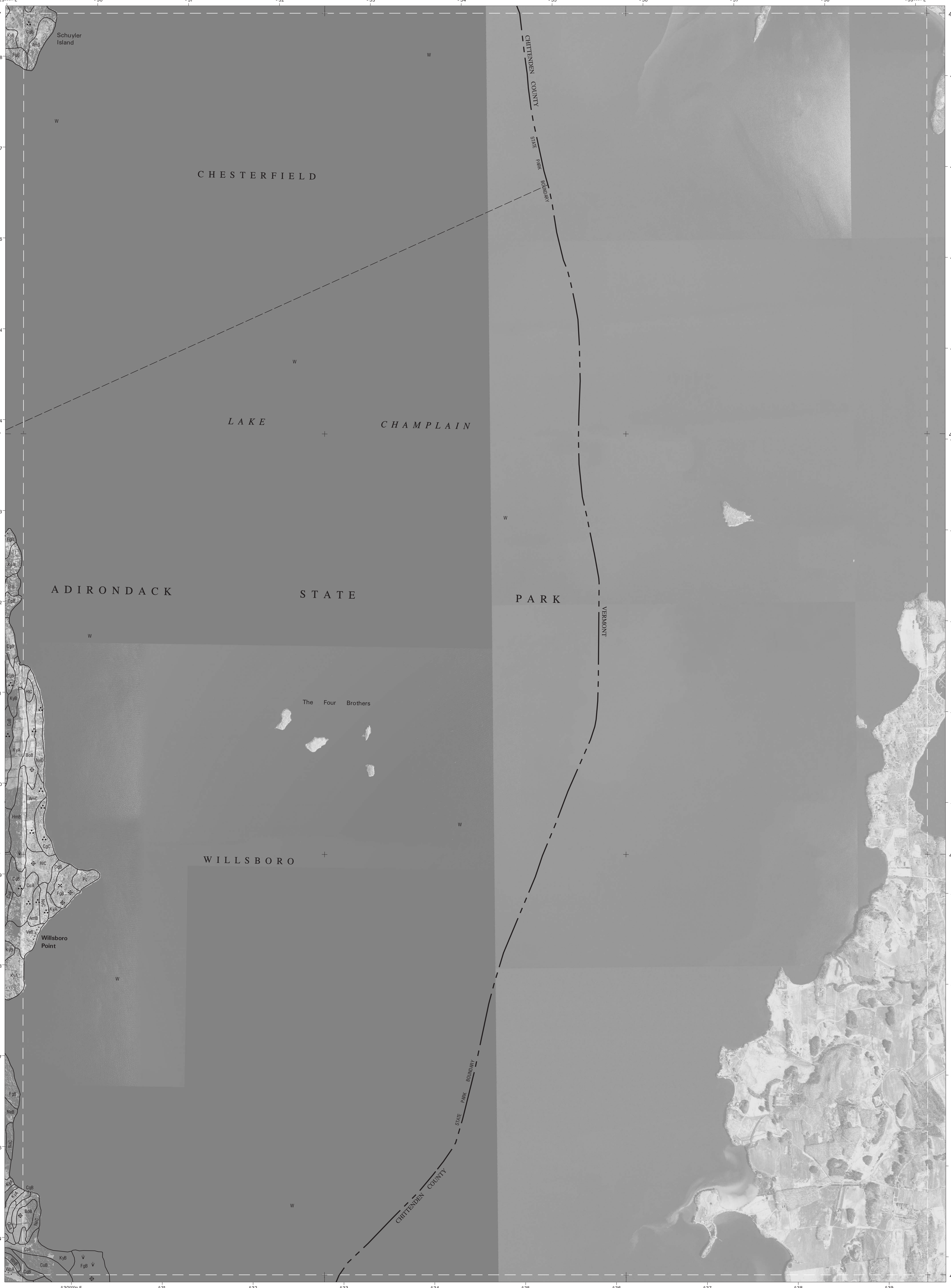
2 COLCHESTER POINT
8 CLINTONVILLE
9 PORT DOUGLAS
10 JUNIPER ISLAND

KEESEVILLE, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 1 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

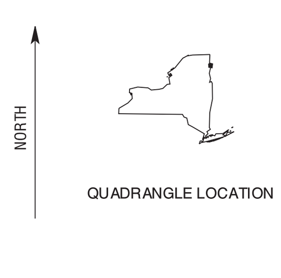
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
JUNIPER ISLAND QUADRANGLE
SHEET NUMBER 10 OF 51

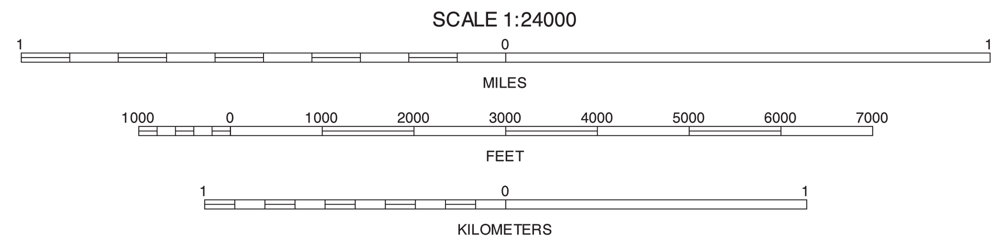


This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Complete aerial imagery for Juniper Island unavailable at time of publication. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



SCALE 1:24000



1	2	
9		
17	18	

1 KEESEVILLE
2 COLCHESTER POINT
9 PORT DOUGLAS
17 WILLSBORO
18 CHARLOTTE

INDEX TO ADJOINING 7.5 MAPS

JUNIPER ISLAND, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 10 OF 51

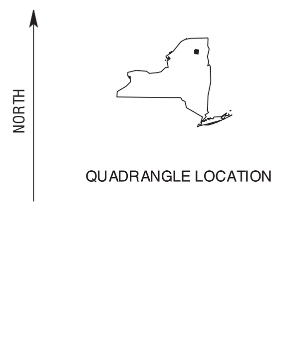
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

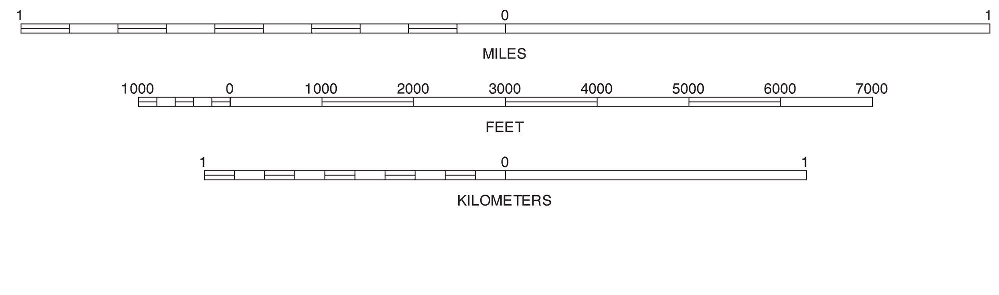
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
SARANAC LAKE QUADRANGLE
SHEET NUMBER 11 OF 51

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.





	3	4
	■	12
	19	20

3 GABRIELS
4 BLOOMINGDALE
12 MCKENZIE MOUNTAIN
19 AMPERSAND LAKE
20 STREET MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

SARANAC LAKE, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 11 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

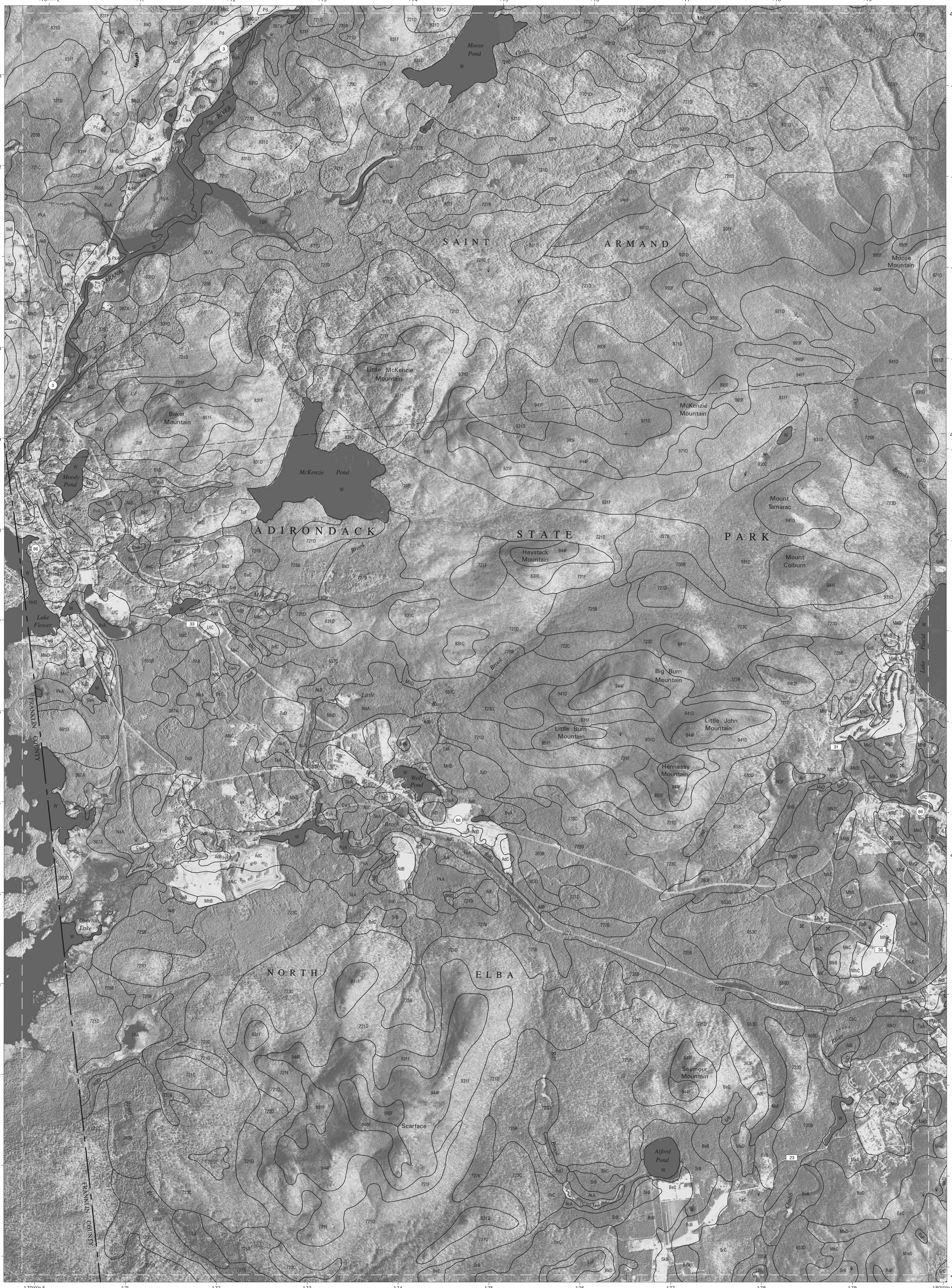
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
MCKENZIE MOUNTAIN QUADRANGLE
SHEET NUMBER 12 OF 51

Joins sheet 3 Gabriels

Joins sheet 4 Bloomingdale

Joins sheet 5 Franklin Falls



Joins sheet 11 Saranac Lake

Joins sheet 13 Lake Placid

Joins sheet 19 Ampersand Lake

Joins sheet 20 Street Mountain

Joins sheet 21 North Elba

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

3	4	5	
11		13	
19	20	21	

3 GABRIELS
4 BLOOMINGDALE
5 FRANKLIN FALLS
11 SARANAC LAKE
13 LAKE PLACID
19 AMPERSAND LAKE
20 STREET MOUNTAIN
21 NORTH ELBA

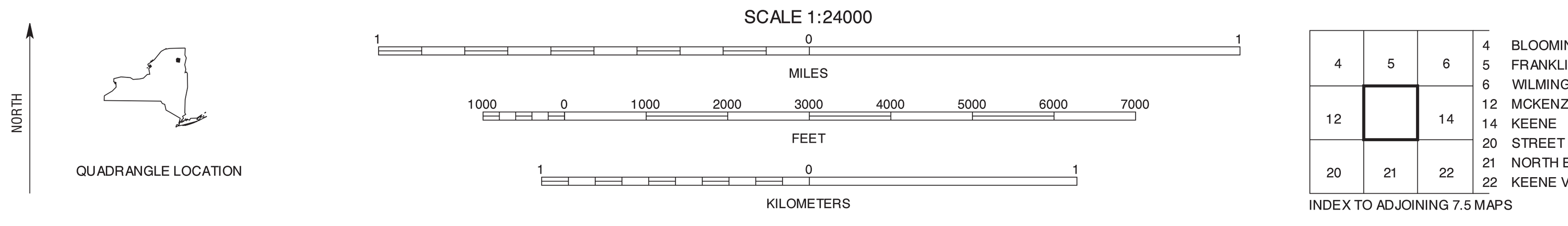
INDEX TO ADJOINING 7.5 MAPS

MCKENZIE MOUNTAIN, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 12 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
LAKE PLACID QUADRANGLE
SHEET NUMBER 13 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

LAKE PLACID, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 13 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
KEENE QUADRANGLE
SHEET NUMBER 14 OF 51

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83), GRS80 Spheroid
1000-meter ticks: Universal Transverse Mercator, zone 18.
Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES: 1 0 1

FEET: 1000 0 1000 2000 3000 4000 5000 6000 7000

KILOMETERS: 1 0 1

5	6	7
13		15
21	22	23

5 FRANKLIN FALLS
6 WILMINGTON
7 AU SABLE FORKS
13 LAKE PLACID
15 JAY MOUNTAIN
21 NORTH ELBA
22 KEENE VALLEY
23 ROCKY PEAK RIDGE

INDEX TO ADJOINING 7.5' MAPS

KEENE, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 14 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
JAY MOUNTAIN QUADRANGLE
SHEET NUMBER 15 OF 51

Joins sheet 6 Wilmington

Joins sheet 7 Au Sable Forks

Joins sheet 8 Clintonville

Joins sheet 14 Keene

Joins sheet 16 Lewis

Joins sheet 22 Keene Valley

Joins sheet 23 Rocky Peak Ridge

Joins sheet 24 Elizabethtown

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

6	7	8
14		16
22	23	24

6 WILMINGTON
7 AU SABLE FORKS
8 CLINTONVILLE
14 KEENE
16 LEWIS
22 KEENE VALLEY
23 ROCKY PEAK RIDGE
24 ELIZABETHTOWN

INDEX TO ADJOINING 7.5 MAPS

JAY MOUNTAIN, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 15 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
LEWIS QUADRANGLE
SHEET NUMBER 16 OF 51

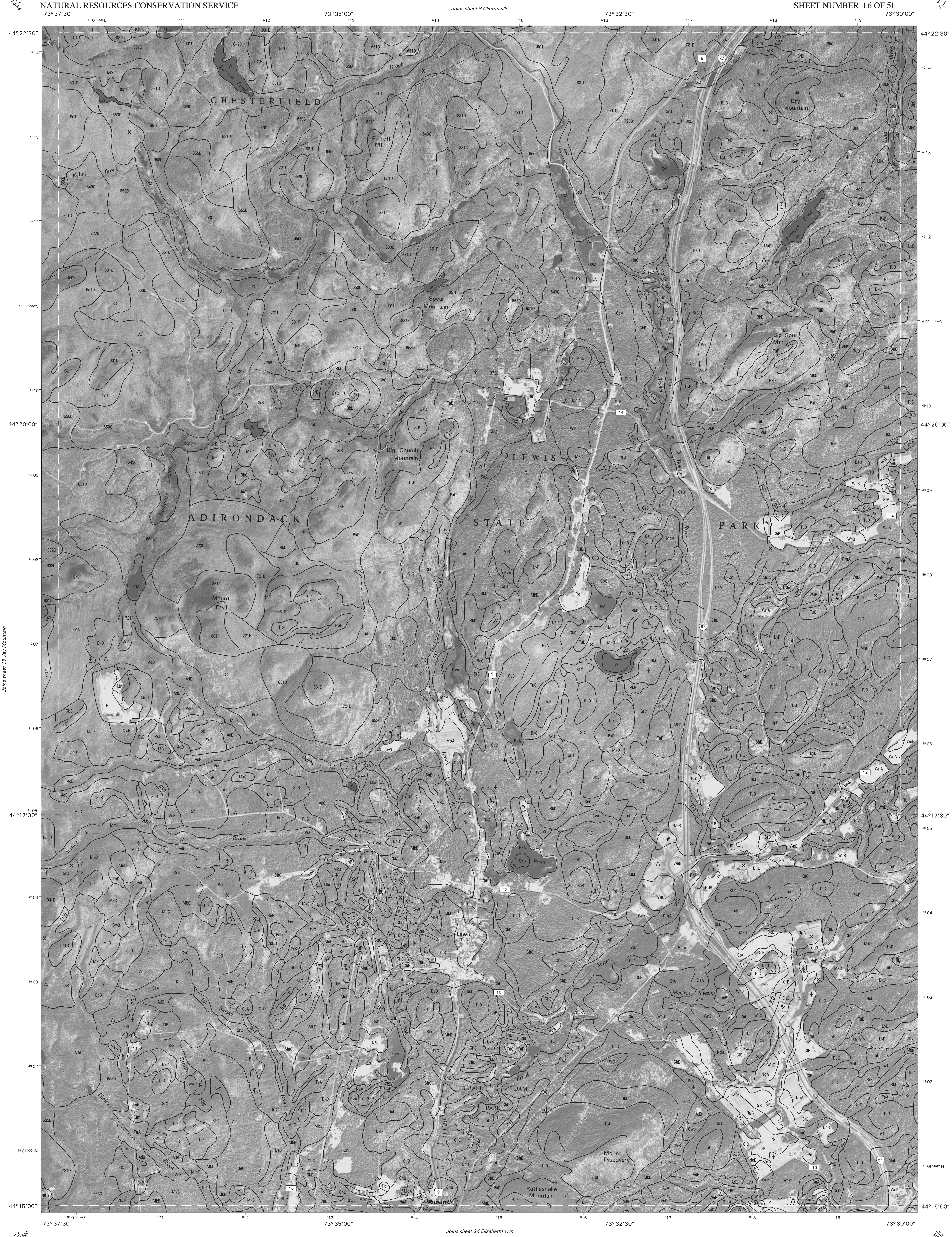
Joins sheet 7 Au Sable Forks

Joins sheet 8 Clintonville

Joins sheet 9 Port Douglas

Joins sheet 15 Jay Mountain

Joins sheet 17 Willsboro



Joins sheet 23 Rocky Peak Ridge

Joins sheet 24 Elizabethtown

Joins sheet 25 Westport

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

7	8	9
15		17
23	24	25

7 AU SABLE FORKS
8 CLINTONVILLE
9 PORT DOUGLAS
15 JAY MOUNTAIN
17 WILLSBORO
23 ROCKY PEAK RIDGE
24 ELIZABETHTOWN
25 WESTPORT

INDEX TO ADJOINING 7.5 MAPS

LEWIS, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 16 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
WILLSBORO QUADRANGLE
SHEET NUMBER 17 OF 51

Joins sheet 8 Clintonville

Joins sheet 9 Port Douglas

Joins sheet 10 Juniper Island

73° 30′00″ 73° 27′30″ 73° 25′00″ 73° 22′30″

44° 22′30″

44° 20′00″

44°17′30″

44°15′00″

Joins sheet 16 Lewis

Joins sheet 18 Charlotte

73° 30′00″ 73° 27′30″ 73° 25′00″ 73° 22′30″

Joins sheet 24 Elizabethtown

Joins sheet 25 Westport

Joins sheet 26 Vergennes West

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Complete aerial imagery for Juniper Island unavailable at time of publication. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

8	9	10
16		18
24	25	26

8 CLINTONVILLE
9 PORT DOUGLAS
10 JUNIPER ISLAND
16 LEWIS
18 CHARLOTTE
24 ELIZABETHTOWN
25 WESTPORT
26 VERGENNES WEST

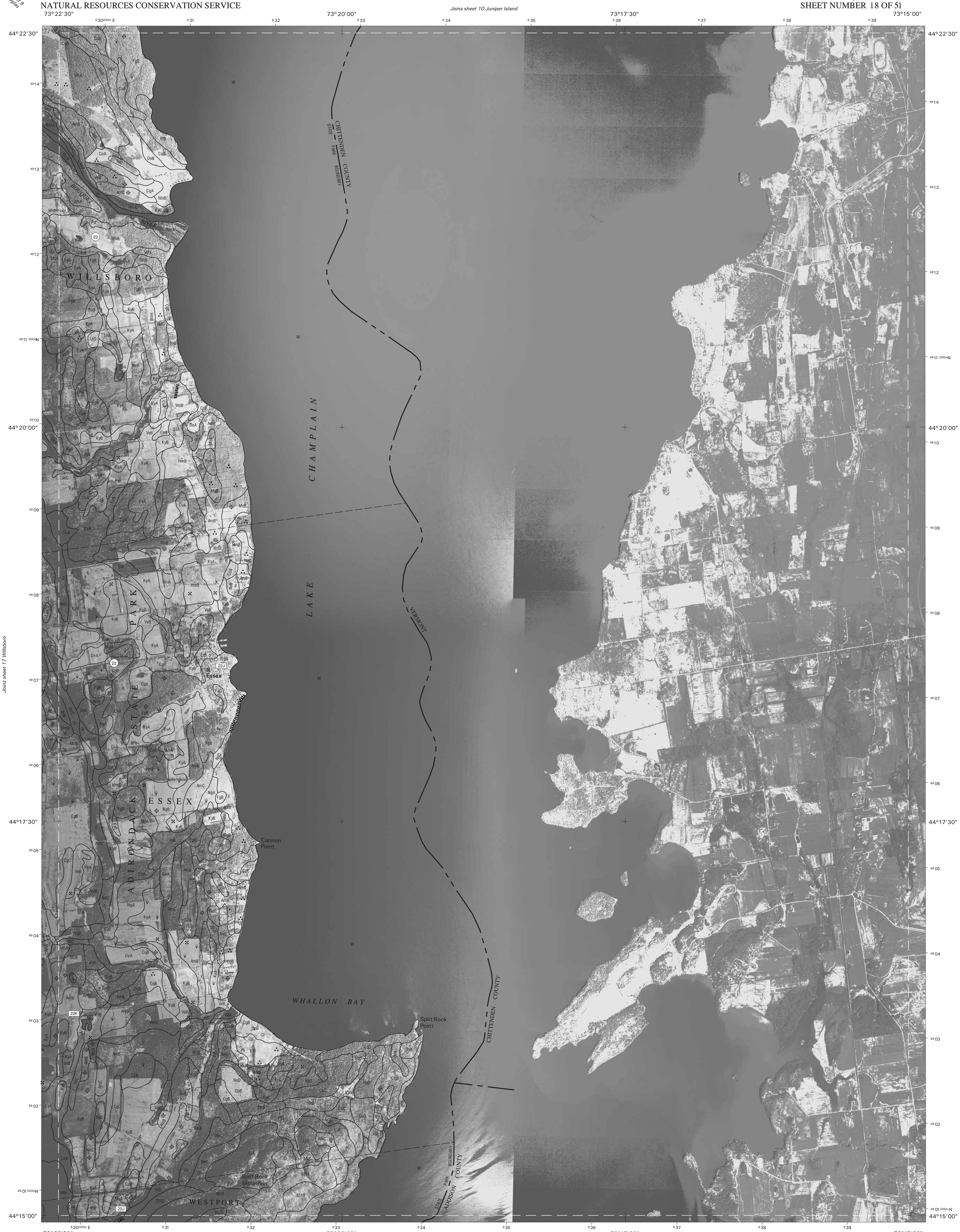
INDEX TO ADJOINING 7.5 MAPS

WILLSBORO, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 17 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
CHARLOTTE QUADRANGLE
SHEET NUMBER 18 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

9	10	
17		
25	26	

9 PORT DOUGLAS
10 JUNIPER ISLAND
17 WILLSBORO
25 WESTPORT
26 VERGENNES WEST

INDEX TO ADJOINING 7.5 MAPS

CHARLOTTE, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 18 OF 51

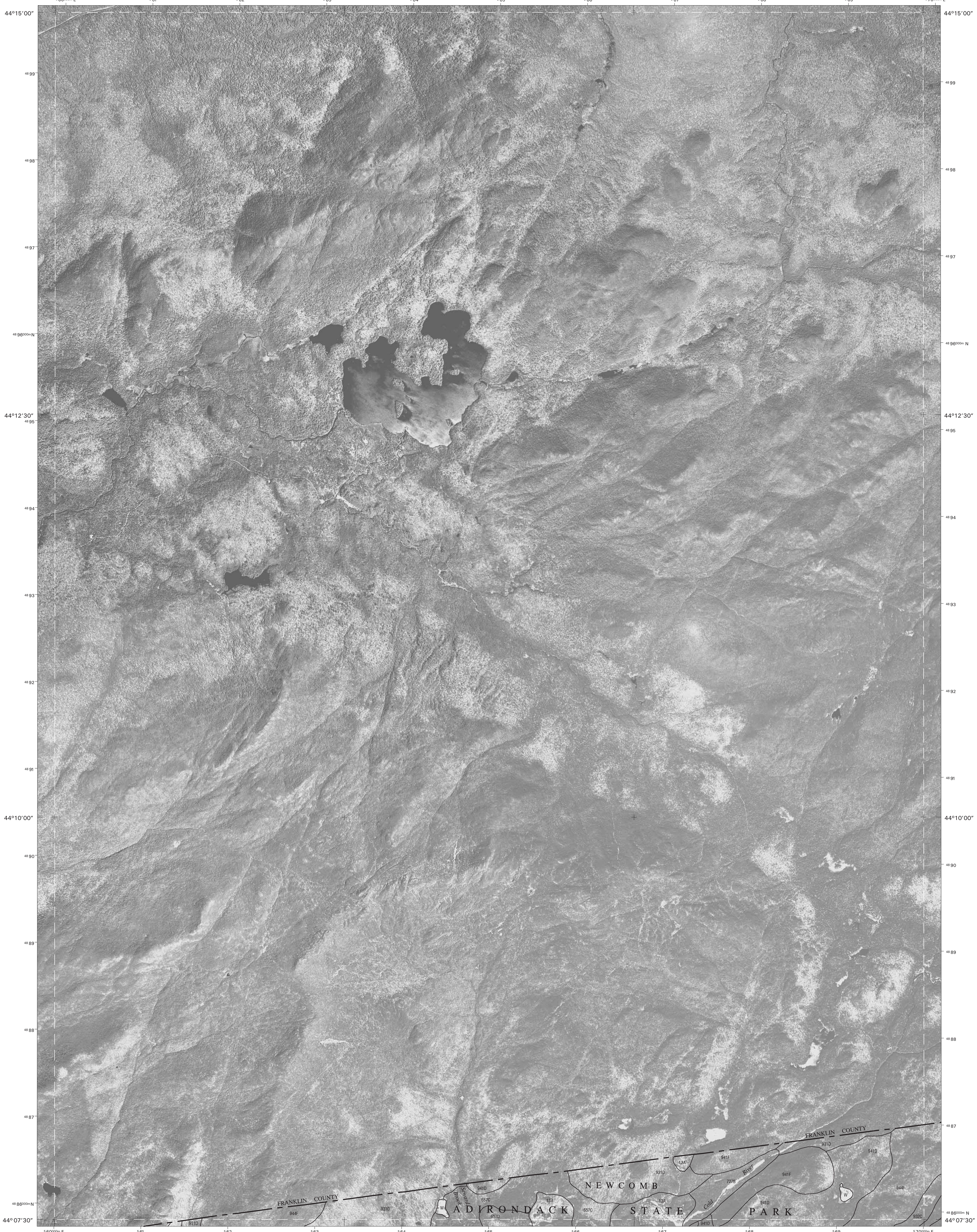
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
AMPERSAND LAKE QUADRANGLE
SHEET NUMBER 19 OF 51

Joins sheet 11 Saranac Lake

Joins sheet 12 McKenzie Mountain



Joins sheet 20 Street Mountain

Joins sheet 27 Kempshall Mountain

Joins sheet 28 Santanoni Peak

Joins sheet 29 Mount Adams

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

11 SARANAC LAKE
12 MCKENZIE MOUNTAIN
20 STREET MOUNTAIN
27 KEMPSHALL MOUNTAIN
28 SANTANONI PEAK
29 MOUNT ADAMS

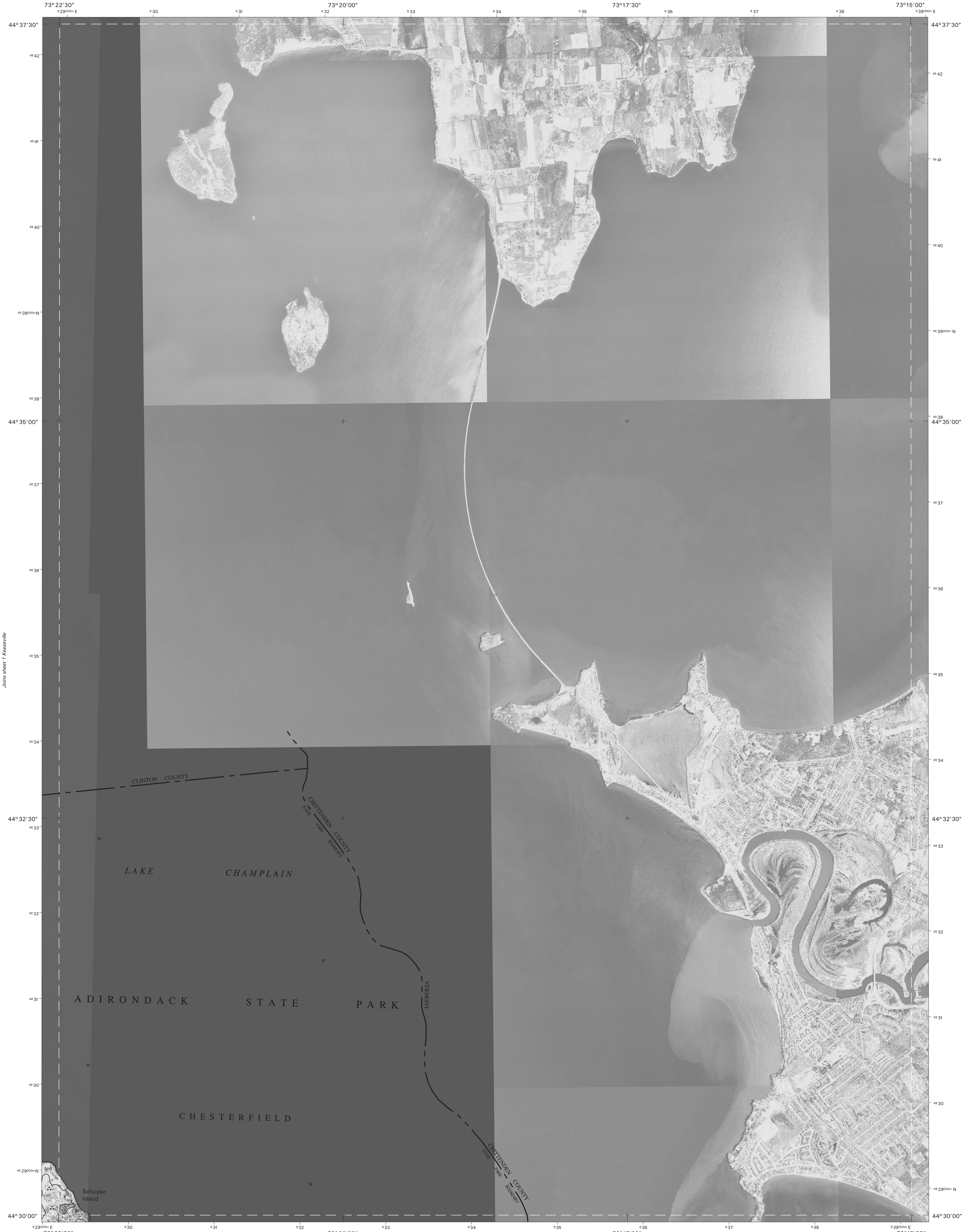
INDEX TO ADJOINING 7.5 MAPS

AMPERSAND LAKE, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 19 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

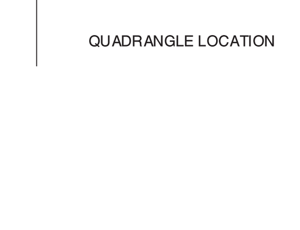
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
COLCHESTER POINT QUADRANGLE
SHEET NUMBER 2 OF 51

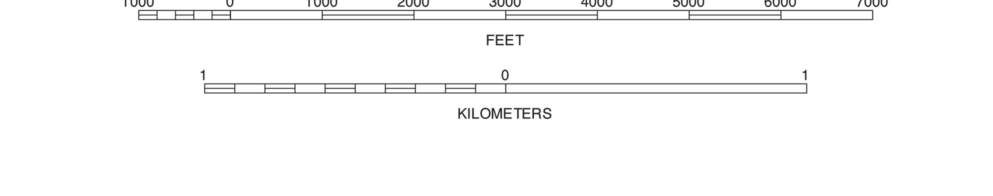


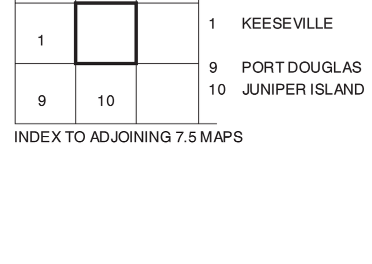
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Complete aerial imagery for Juniper Island unavailable at time of publication. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid
1000-meter ticks: Universal Transverse Mercator, zone 18.
Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



SCALE 1:24000



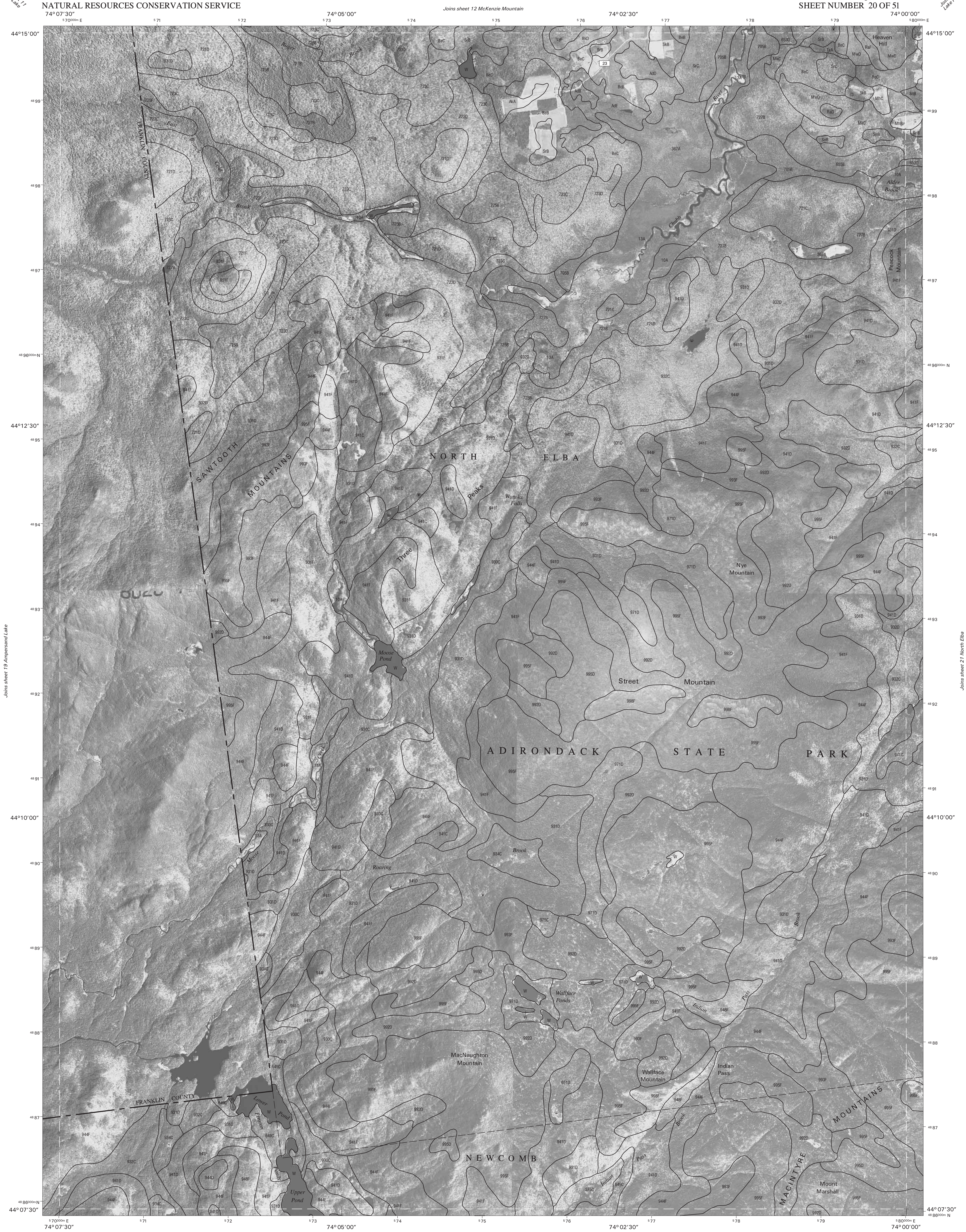


COLCHESTER POINT, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 2 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
STREET MOUNTAIN QUADRANGLE
SHEET NUMBER 20 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid
1000-meter ticks: Universal Transverse Mercator, zone 18.
Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES: 1 0 1

FEET: 1000 0 1000 2000 3000 4000 5000 6000 7000

KILOMETERS: 1 0 1

11	12	13
19		21
28	29	30

11 SARANAC LAKE
12 MCKENZIE MOUNTAIN
13 LAKE PLACID
19 AMPERSAND LAKE
21 NORTH ELBA
28 SANTANONI PEAK
29 MOUNT ADAMS
30 MOUNT MARCY

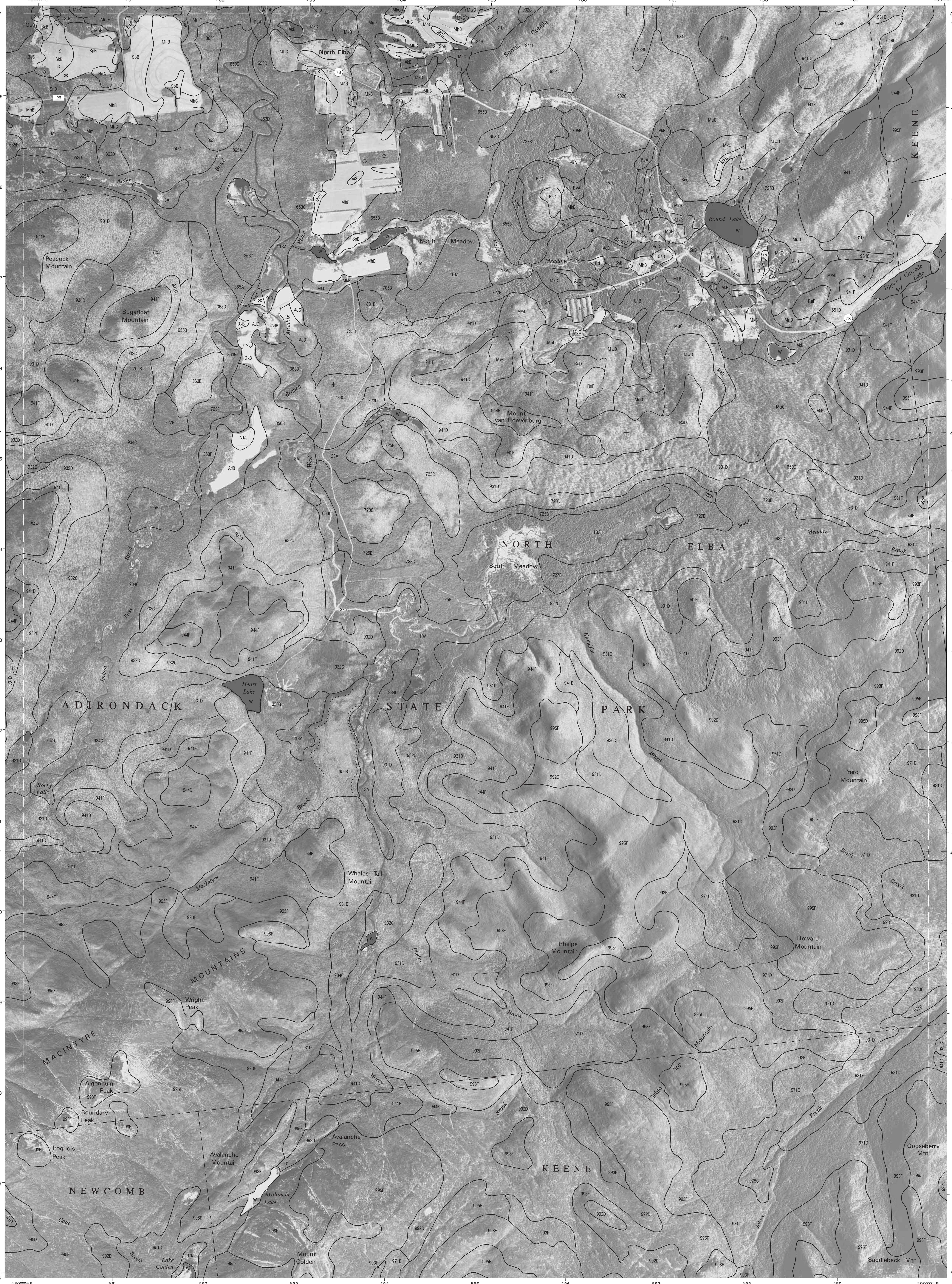
INDEX TO ADJOINING 7.5 MAPS

STREET MOUNTAIN, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 20 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Joins sheet 12 McKenzie Mountain
Joins sheet 13 Lake Placid
Joins sheet 14 Keene
Joins sheet 20 Street Mountain
Joins sheet 22 Keene Valley
Joins sheet 29 Mount Adams
Joins sheet 30 Mount Marcy
Joins sheet 31 Dix Mountain



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

12	13	14
20		22
29	30	31

12 MCKENZIE MOUNTAIN
13 LAKE PLACID
14 KEENE
20 STREET MOUNTAIN
22 KEENE VALLEY
29 MOUNT ADAMS
30 MOUNT MARCY
31 DIX MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

NORTH ELBA, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 21 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
KEENE VALLEY QUADRANGLE
SHEET NUMBER 22 OF 51

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

13	14	15
21		23
30	31	32

13 LAKE PLACID
14 KEENE
15 JAY MOUNTAIN
21 NORTH ELBA
23 ROCKY PEAK RIDGE
30 MOUNT MARCY
31 DIX MOUNTAIN
32 UNDERWOOD

INDEX TO ADJOINING 7.5 MAPS

KEENE VALLEY, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 22 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

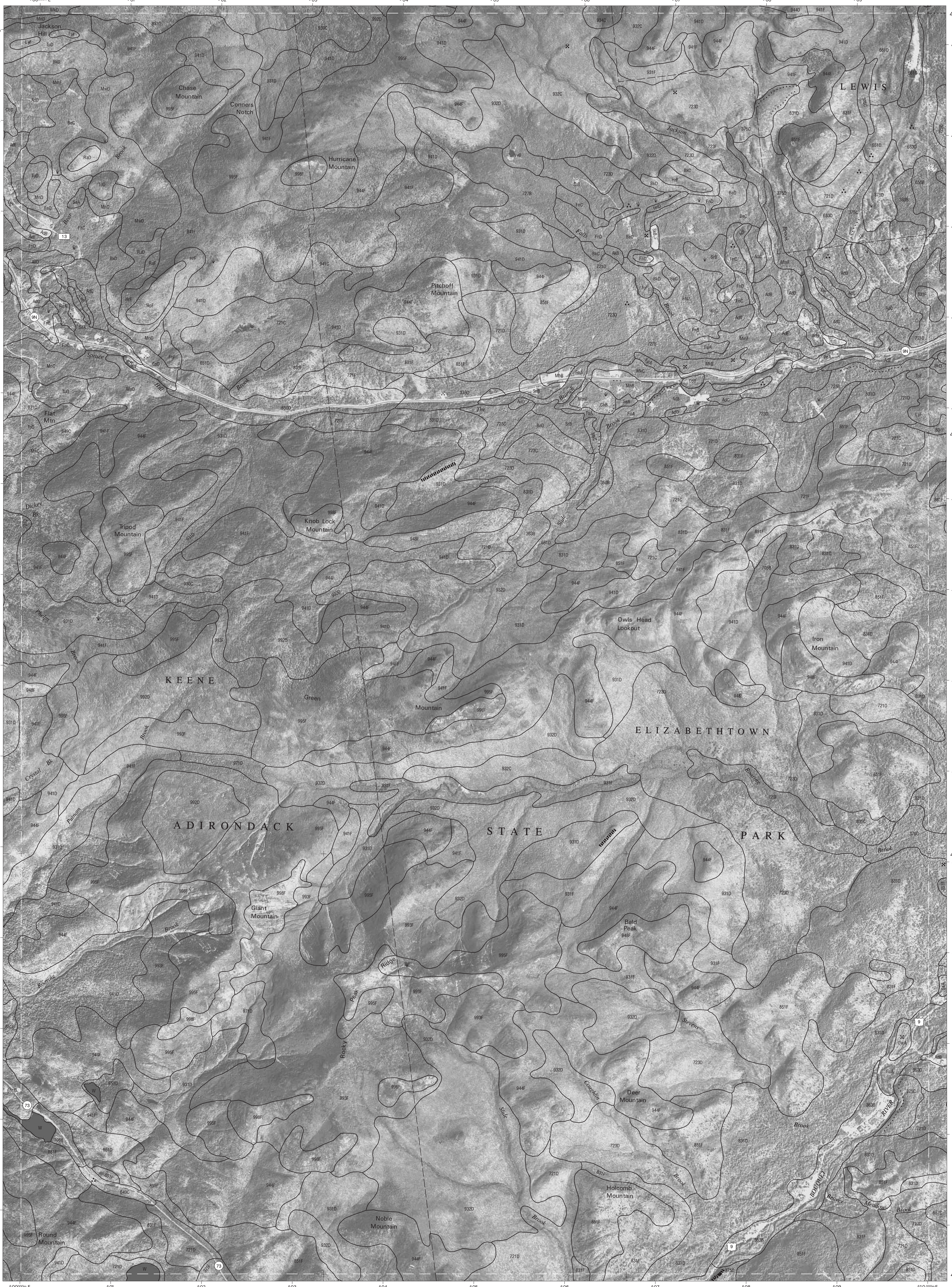
Joins sheet 14 Keene

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
ROCKY PEAK RIDGE QUADRANGLE
SHEET NUMBER 23 OF 51

Joins sheet 16 Lewis

Joins sheet 15 Jay Mountain



Joins sheet 22 Keene Valley

Joins sheet 24 Elizabethtown

Joins sheet 31 Dix Mountain

Joins sheet 32 Underwood

Joins sheet 33 Witherbee

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

14	15	16
22		24
31	32	33

14 KEENE
15 JAY MOUNTAIN
16 LEWIS
22 KEENE VALLEY
24 ELIZABETHTOWN
31 DIX MOUNTAIN
32 UNDERWOOD
33 WITHERBEE

INDEX TO ADJOINING 7.5 MAPS

ROCKY PEAK RIDGE, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 23 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

15	16	17
23		25
32	33	34

15 JAY MOUNTAIN
16 LEWIS
17 WILLSBORO
23 ROCKY PEAK RIDGE
25 WESTPORT
32 UNDERWOOD
33 WITHERBEE
34 PORT HENRY

INDEX TO ADJOINING 7.5 MAPS

ELIZABETHTOWN, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 24 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
WESTPORT QUADRANGLE
SHEET NUMBER 25 OF 51

Joins sheet 16 Lewis

Joins sheet 17 Willsboro

Joins sheet 18 Charlotte

Joins sheet 24 Elizabethtown

Joins sheet 26 Vergennes West

Joins sheet 33 Witherbee

Joins sheet 34 Port Henry

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

1 0 1
MILES

1000 0 1000 2000 3000 4000 5000 6000 7000
FEET

1 0 1
KILOMETERS

16	17	18
24		26
33	34	

16 LEWIS
17 WILLSBORO
18 CHARLOTTE
24 ELIZABETHTOWN
26 VERGENNES WEST
33 WITHERBEE
34 PORT HENRY

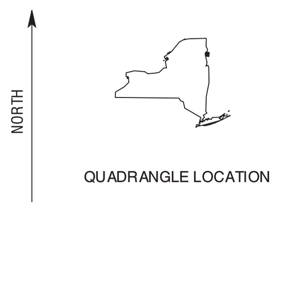
INDEX TO ADJOINING 7.5 MAPS

WESTPORT, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 25 OF 51

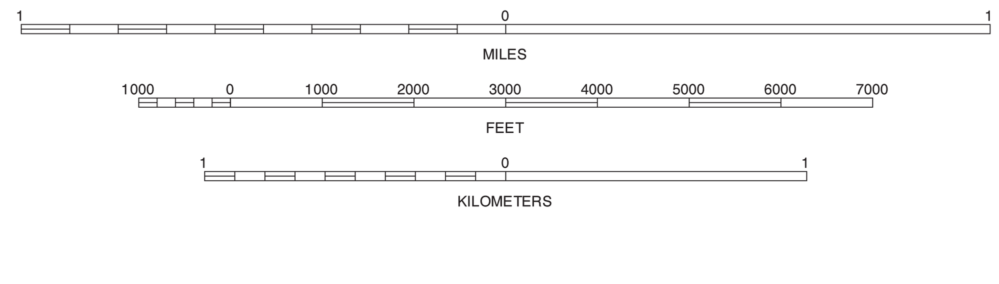
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION



17	18	
25		
34		

17 WILLSBORO
18 CHARLOTTE
25 WESTPORT
34 PORT HENRY

INDEX TO ADJOINING 7.5 MAPS

VERGENNES WEST, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 26 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
KEMPSHALL MOUNTAIN QUADRANGLE
SHEET NUMBER 27 OF 51

Joins sheet 19 Ampersand Lake

Joins sheet 28 Santanoni Peak

Joins sheet 35 Dunbrook Mountain

Joins sheet 36 Newcomb

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

19	AMPERSAND LAKE
28	SANTANONI PEAK
35	DUNBROOK MOUNTAIN
36	NEWCOMB

INDEX TO ADJOINING 7.5 MAPS

KEMPSHALL MOUNTAIN, NEW YORK

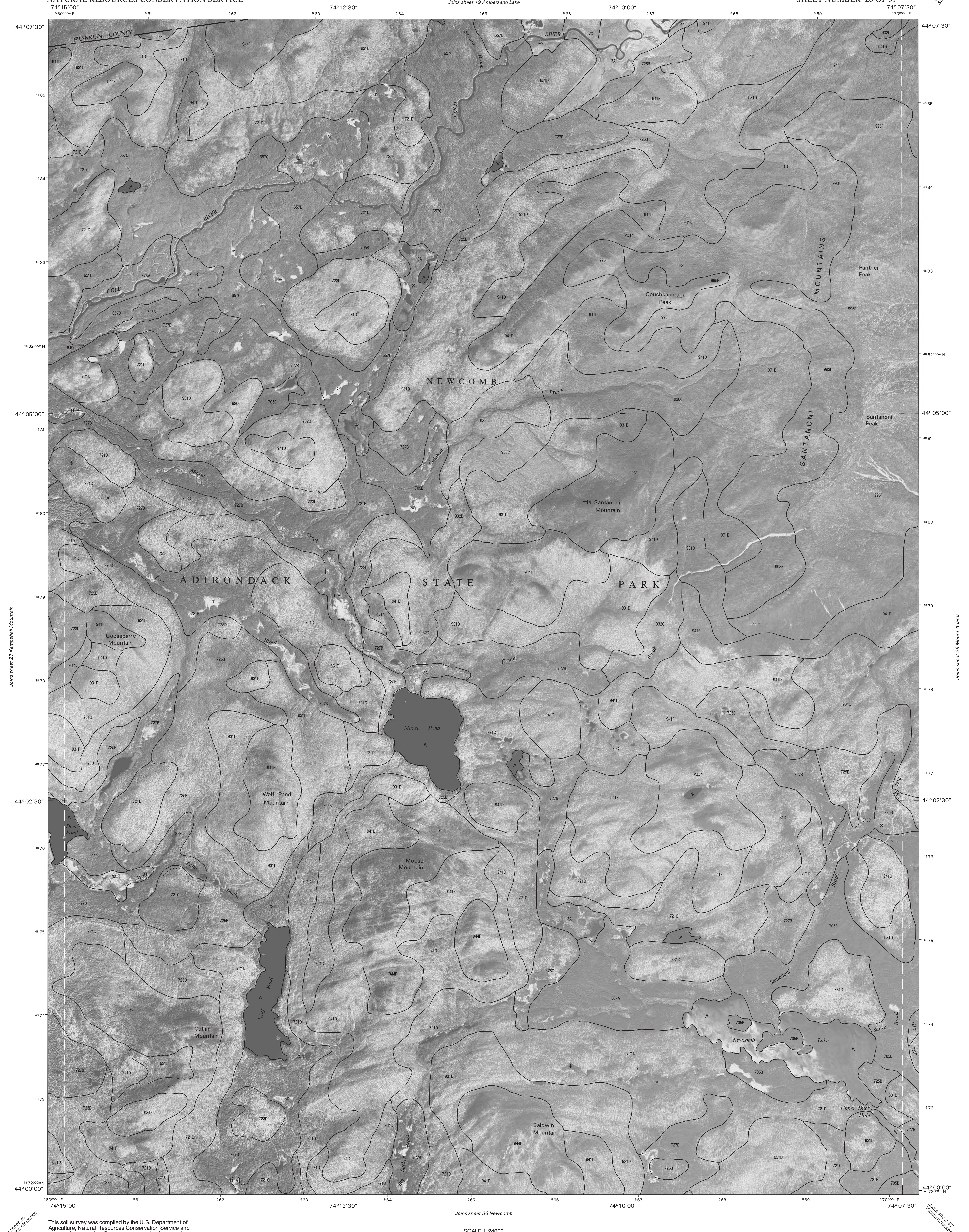
7.5 MINUTE SERIES

SHEET NUMBER 27 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

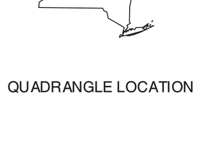
ESSEX COUNTY, NEW YORK
SANTANONI PEAK QUADRANGLE
SHEET NUMBER 28 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

	19	20
27		29
35	36	37

19 AMPERSAND LAKE
20 STREET MOUNTAIN
27 KEMPSHALL MOUNTAIN
29 MOUNT ADAMS
35 DUNBROOK MOUNTAIN
36 NEWCOMB
37 VANDERWHACKER MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

SANTANONI PEAK, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 28 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
MOUNT ADAMS QUADRANGLE
SHEET NUMBER 29 OF 51

Joins sheet 37 Vanderwhacker Mountain

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

19	20	21
28		30
36	37	38

19 AMPERSAND LAKE
20 STREET MOUNTAIN
21 NORTH ELBA
28 SANTANONI PEAK
30 MOUNT MARCY
36 NEWCOMB
37 VANDERWHACKER MOUNTAIN
38 LESTER DAM

INDEX TO ADJOINING 7.5 MAPS

MOUNT ADAMS, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 29 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

4	BLOOMINGDALE
11	SARANAC LAKE
12	MCKENZIE MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

GABRIELS, NEW YORK

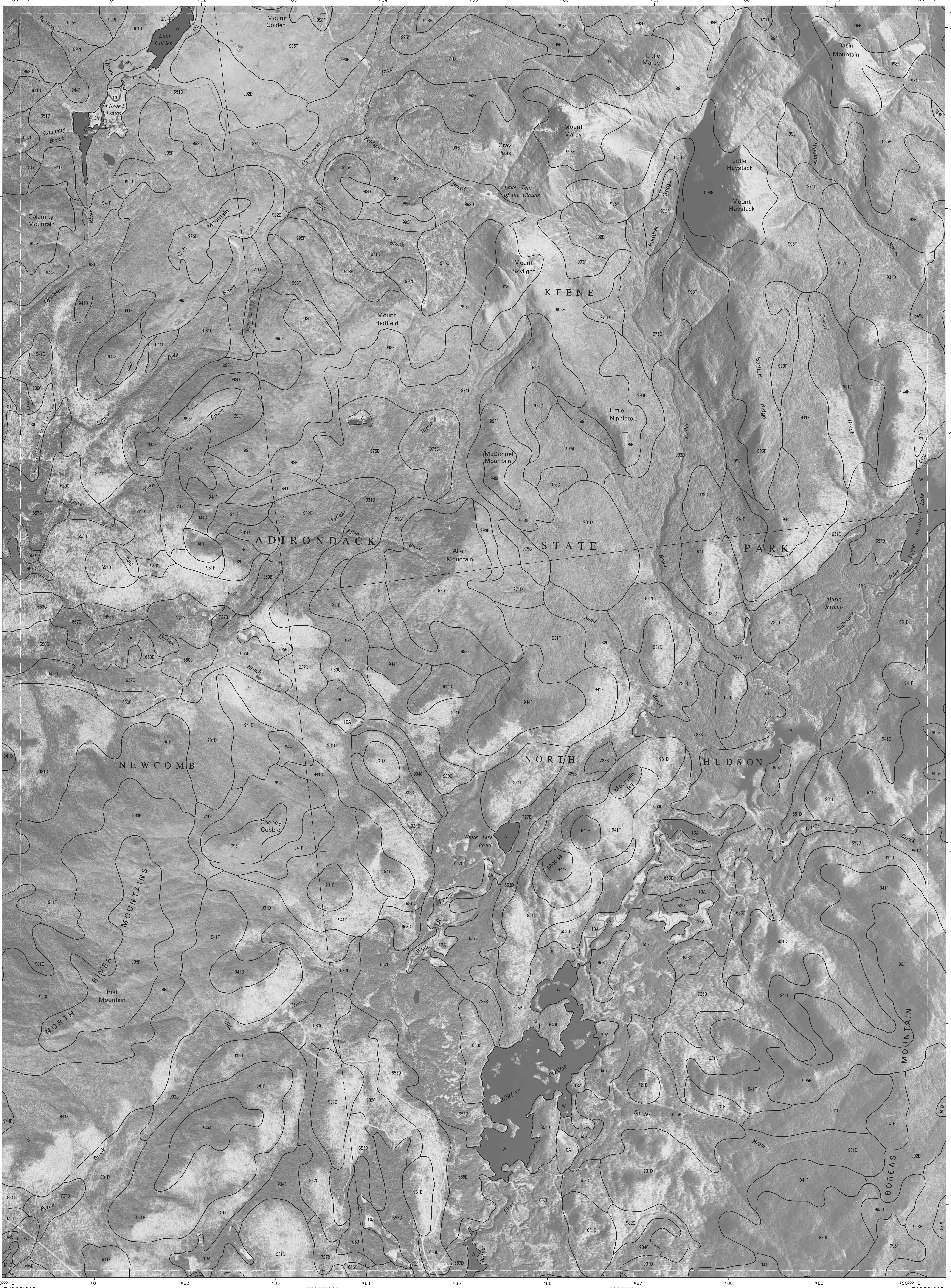
7.5 MINUTE SERIES

SHEET NUMBER 3 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
MOUNT MARCY QUADRANGLE
SHEET NUMBER 30 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

20	21	22
29		31
37	38	39

20 STREET MOUNTAIN
21 NORTH ELBA
22 KEENE VALLEY
29 MOUNT ADAMS
31 DIX MOUNTAIN
37 VANDERWHACKER MOUNTAIN
38 LESTER DAM
39 BLUE RIDGE

INDEX TO ADJOINING 7.5 MAPS

MOUNT MARCY, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 30 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
DIX MOUNTAIN QUADRANGLE
SHEET NUMBER 31 OF 51

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

21	22	23
30		32
38	39	40

21 NORTH ELBA
22 KEENE VALLEY
23 ROCKY PEAK RIDGE
30 MOUNT MARCY
32 UNDERWOOD
38 LESTER DAM
39 BLUE RIDGE
40 PARADOX LAKE

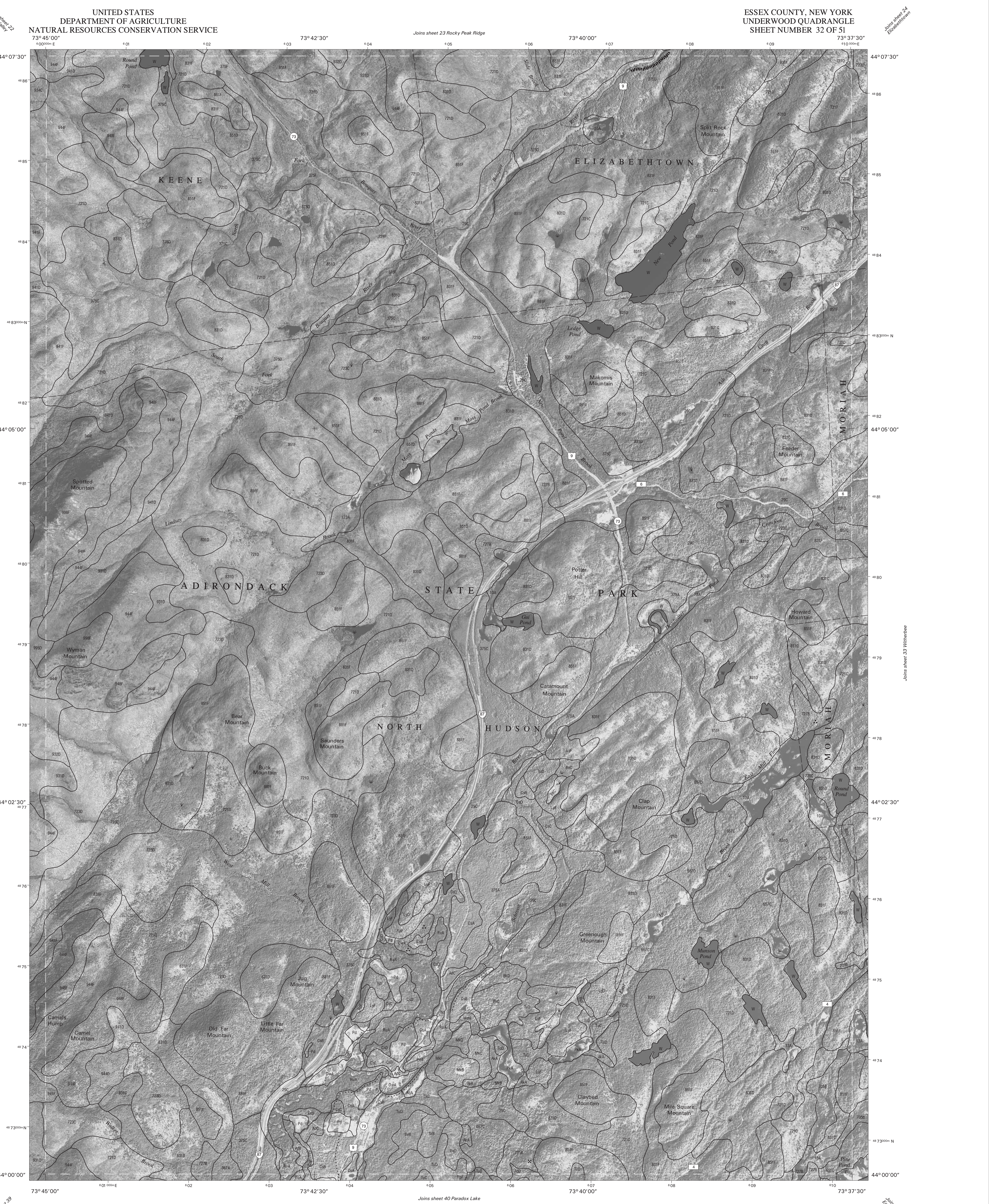
INDEX TO ADJOINING 7.5 MAPS

DIX MOUNTAIN, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 31 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
UNDERWOOD QUADRANGLE
SHEET NUMBER 32 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

22	23	24
31		33
39	40	41

22 KEENE VALLEY
23 ROCKY PEAK RIDGE
24 ELIZABETHTOWN
31 DIX MOUNTAIN
33 WITHERBEE
39 BLUE RIDGE
40 PARADOX LAKE
41 EAGLE LAKE

INDEX TO ADJOINING 7.5 MAPS

UNDERWOOD, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 32 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
WITHERBEE QUADRANGLE
SHEET NUMBER 33 OF 51

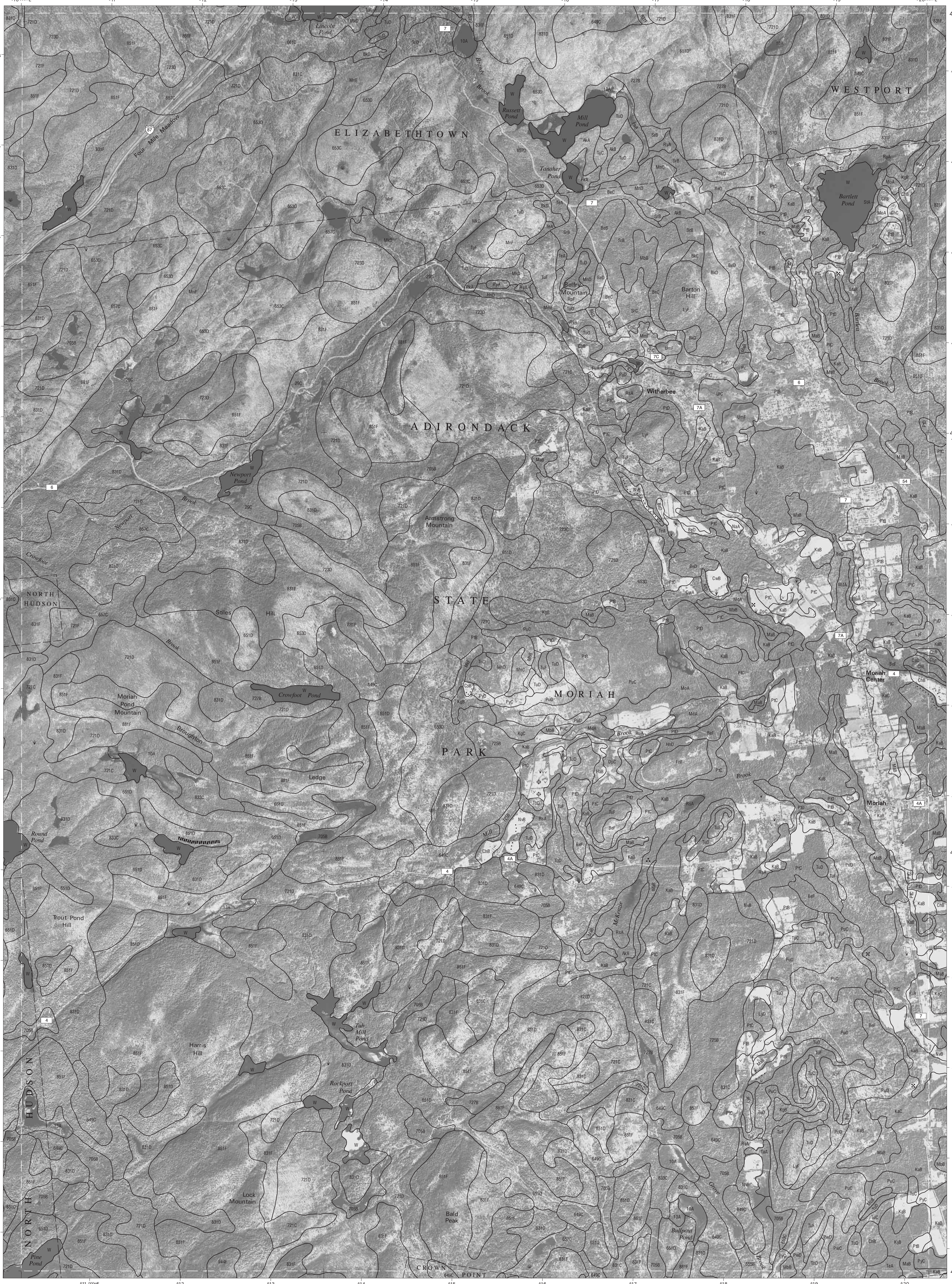
Joins sheet 23 Rocky Peak Ridge

Joins sheet 24 Elizabethtown

Joins sheet 25 Westport

Joins sheet 32 Underwood

Joins sheet 34 Port Henry



Joins sheet 41 Eagle Lake

Joins sheet 40 Paradox Lake

Joins sheet 42 Crown Point

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

1 0 1
MILES

1000 0 1000 2000 3000 4000 5000 6000 7000
FEET

1 0 1
KILOMETERS

23	24	25
32		34
40	41	42

23 ROCKY PEAK RIDGE
24 ELIZABETHTOWN
25 WESTPORT
32 UNDERWOOD
34 PORT HENRY
40 PARADOX LAKE
41 EAGLE LAKE
42 CROWN POINT

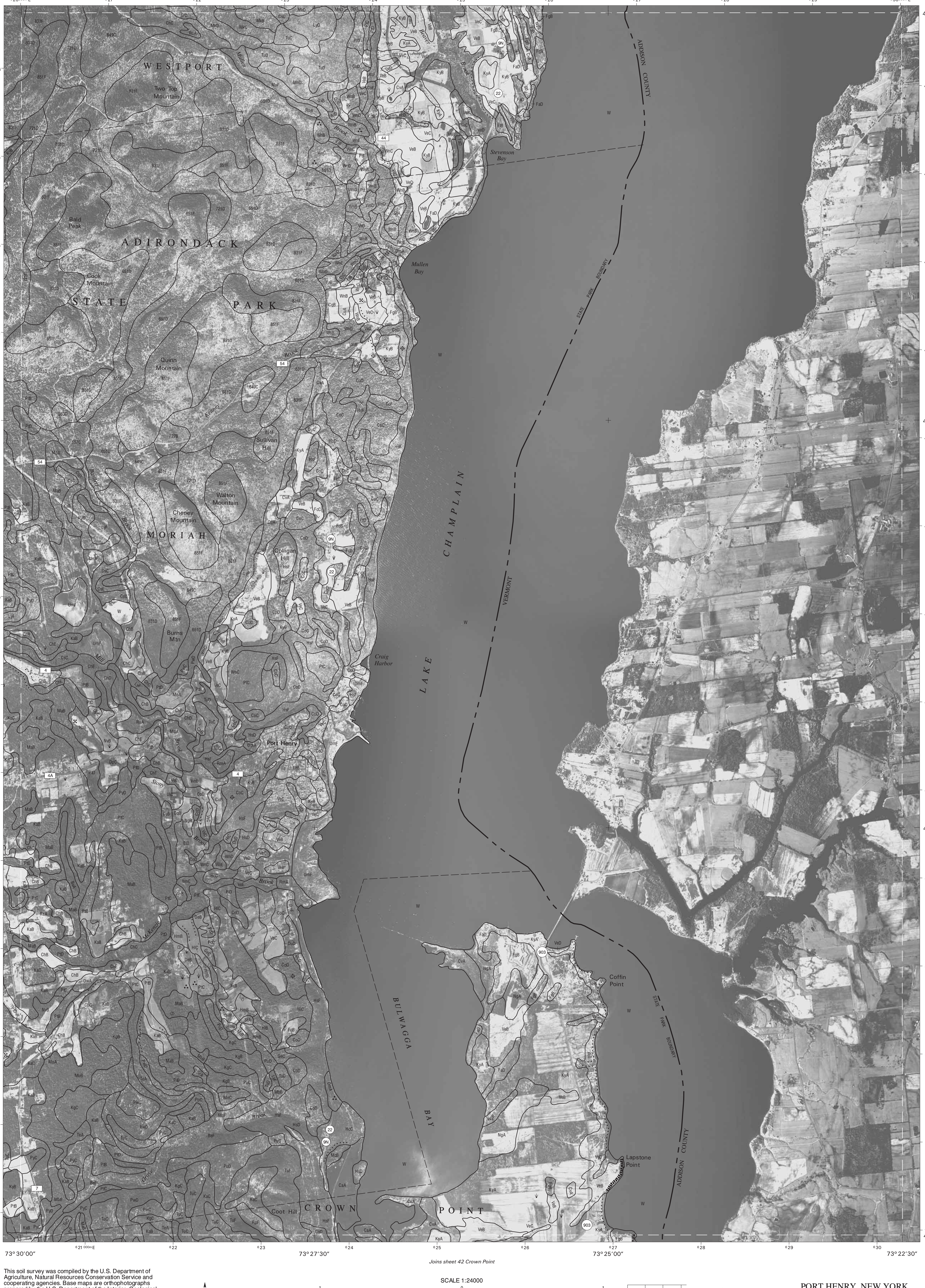
INDEX TO ADJOINING 7.5 MAPS

WITHERBEE, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 33 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
PORT HENRY QUADRANGLE
SHEET NUMBER 34 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

24	25	26	
33			
41	42		

24 ELIZABETHTOWN
25 WESTPORT
26 VERGENNES WEST
33 WITHERBEE

41 EAGLE LAKE
42 CROWN POINT

INDEX TO ADJOINING 7.5 MAPS

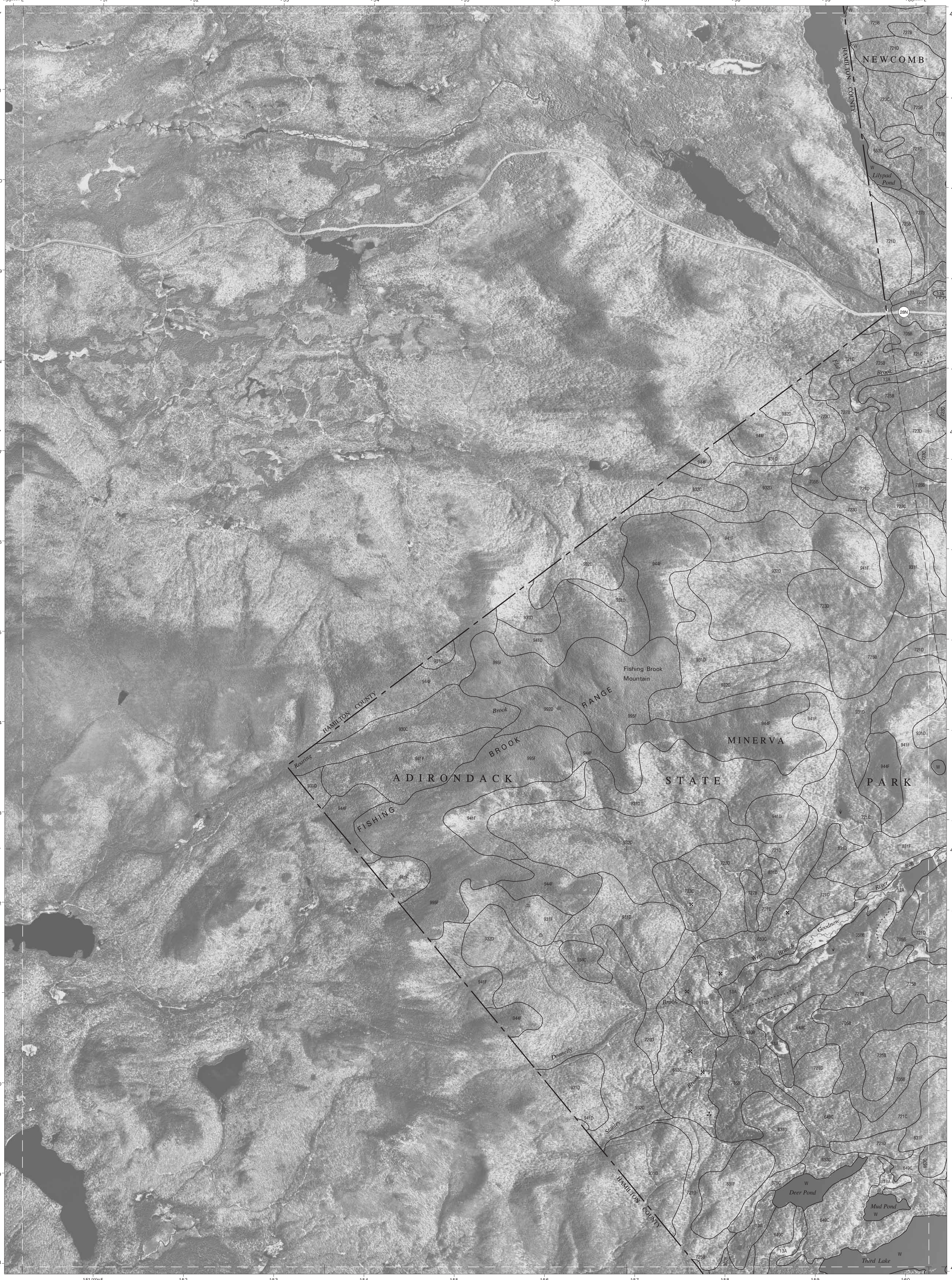
PORT HENRY, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 34 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
DUNBROOK MOUNTAIN QUADRANGLE
SHEET NUMBER 35 OF 51

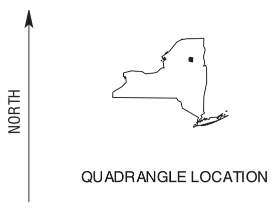
Joins sheet 27 Kempshall Mountain
Joins sheet 28 Santanoni Peak



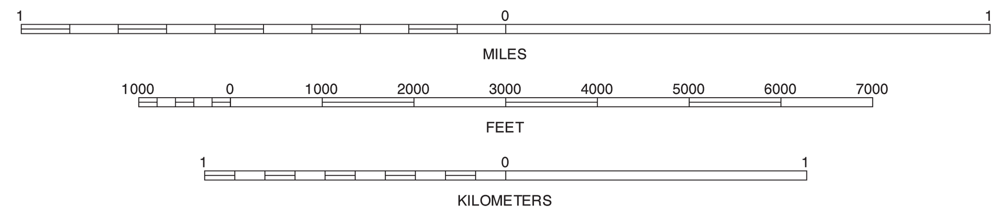
Joins sheet 43 Burgess Mountain
Joins sheet 44 Bad Luck Mountain

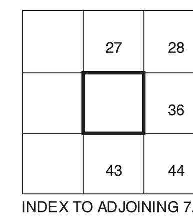
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



SCALE 1:24000





27 KEMPSHALL MOUNTAIN
28 SANTANONI PEAK
36 NEWCOMB
43 BURGESS MOUNTAIN
44 BAD LUCK MOUNTAIN

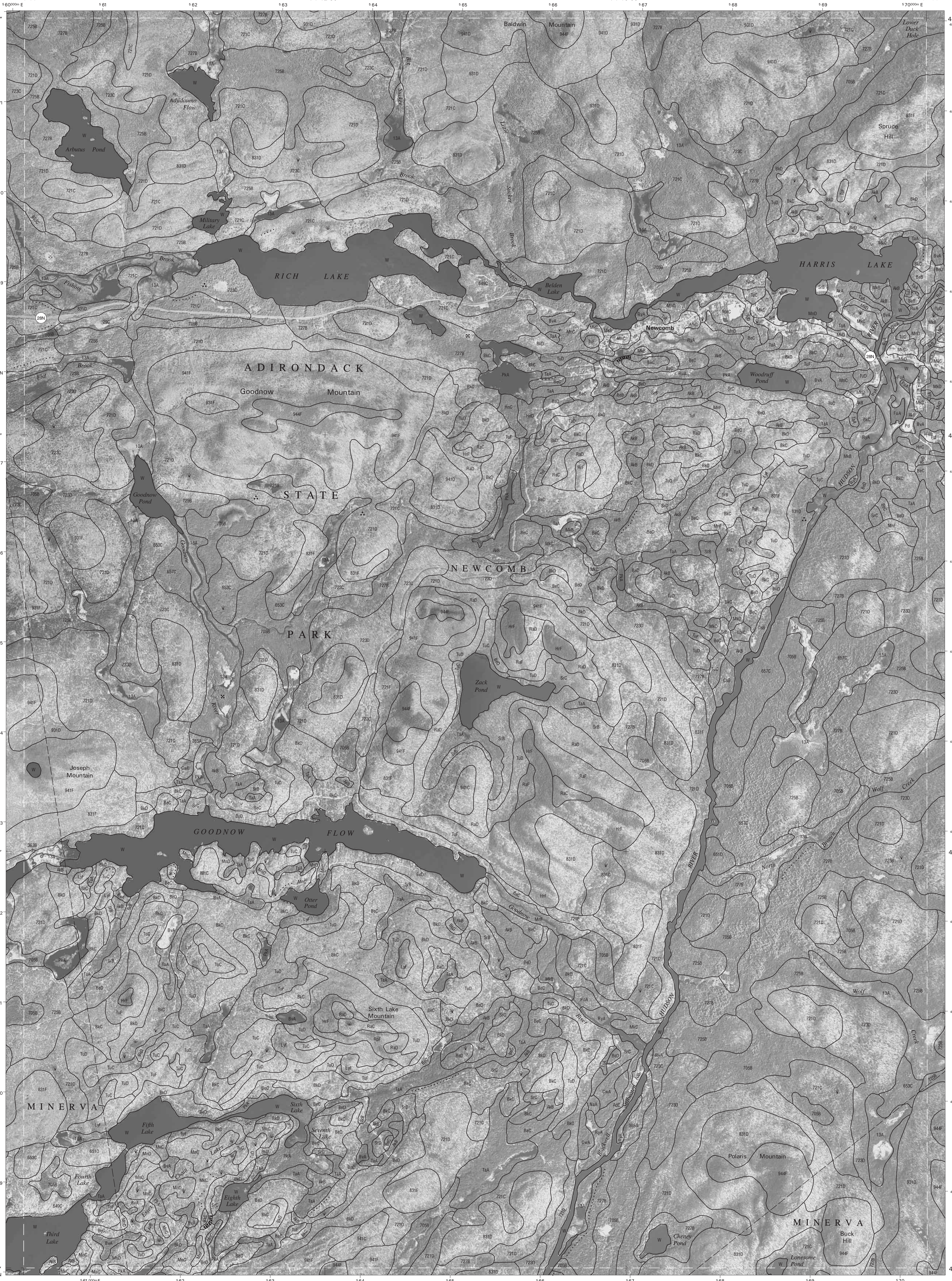
INDEX TO ADJOINING 7.5 MAPS

DUNBROOK MOUNTAIN, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 35 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
NEWCOMB QUADRANGLE
SHEET NUMBER 36 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

27	28	29
35		37
43	44	45

27 KEMPSHALL MOUNTAIN
28 SANTANONI PEAK
29 MOUNT ADAMS
35 DUNBROOK MOUNTAIN
37 VANDERWHACKER MOUNTAIN
43 BURGESS MOUNTAIN
44 BAD LUCK MOUNTAIN
45 STARBUCK MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

NEWCOMB, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 36 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

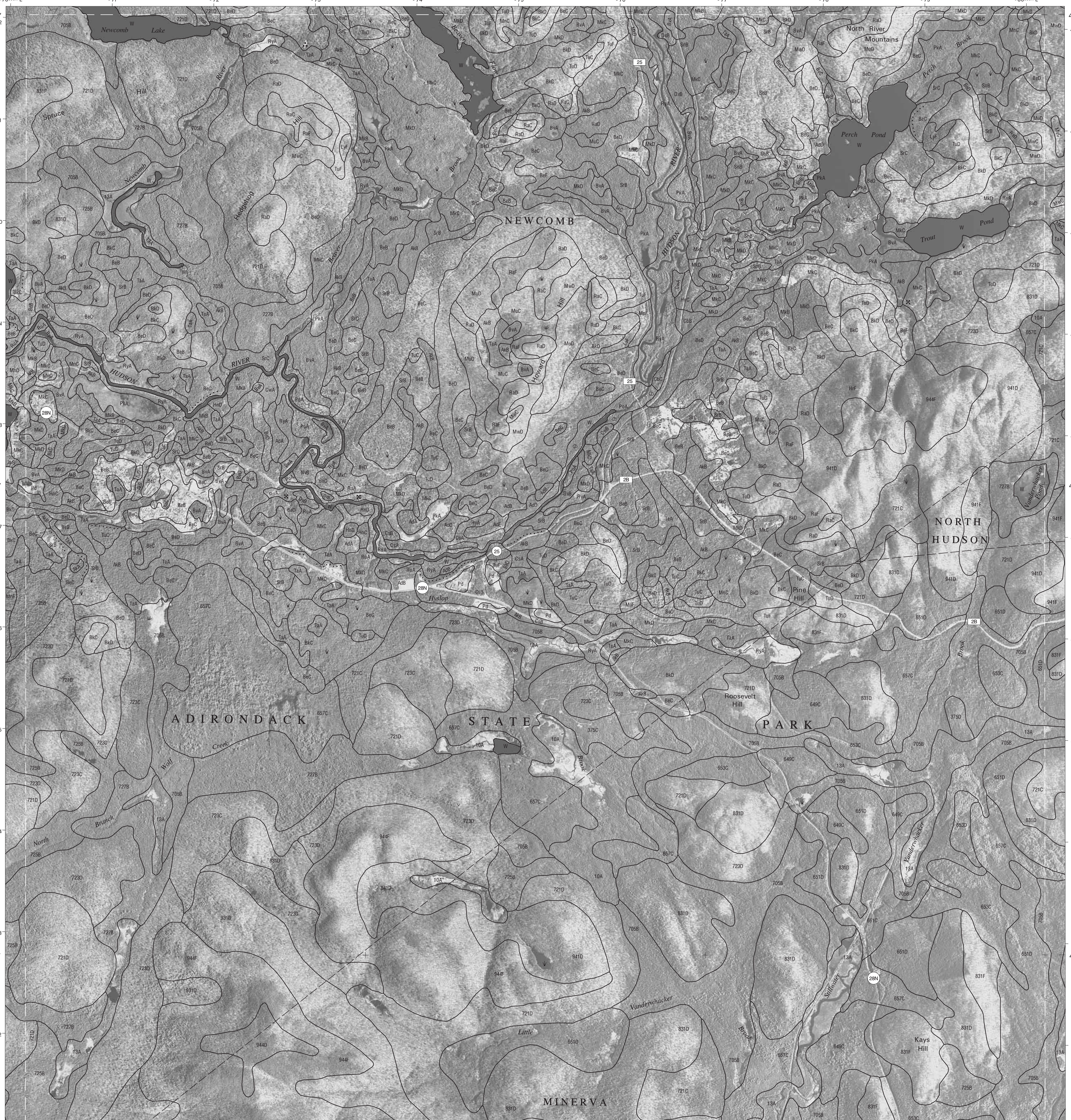
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
VANDERWHACKER MOUNTAIN QUADRANGLE
SHEET NUMBER 37 OF 51

Joins sheet 28 Santanoni Peak

Joins sheet 29 Mount Adams

Joins sheet 30 Mount Marcy



Joins sheet 36 Newcomb

Joins sheet 38 Lester Dam

Joins sheet 44 Bad Luck Mountain

Joins sheet 45 Starbuck Mountain

Joins sheet 46 Minerva

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

28	29	30
36		38
44	45	46

28 SANTANONI PEAK
29 MOUNT ADAMS
30 MOUNT MARCY
36 NEWCOMB
38 LESTER DAM
44 BAD LUCK MOUNTAIN
45 STARBUCK MOUNTAIN
46 MINERVA

INDEX TO ADJOINING 7.5 MAPS

VANDERWHACKER MOUNTAIN, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 37 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
LESTER DAM QUADRANGLE
SHEET NUMBER 38 OF 51

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

29	30	31
37		39
45	46	47

29 MOUNT ADAMS
30 MOUNT MARCY
31 DIX MOUNTAIN
37 VANDERWHACKER MOUNTAIN
39 BLUE RIDGE
45 STARBUCK MOUNTAIN
46 MINERVA
47 SCHROON LAKE

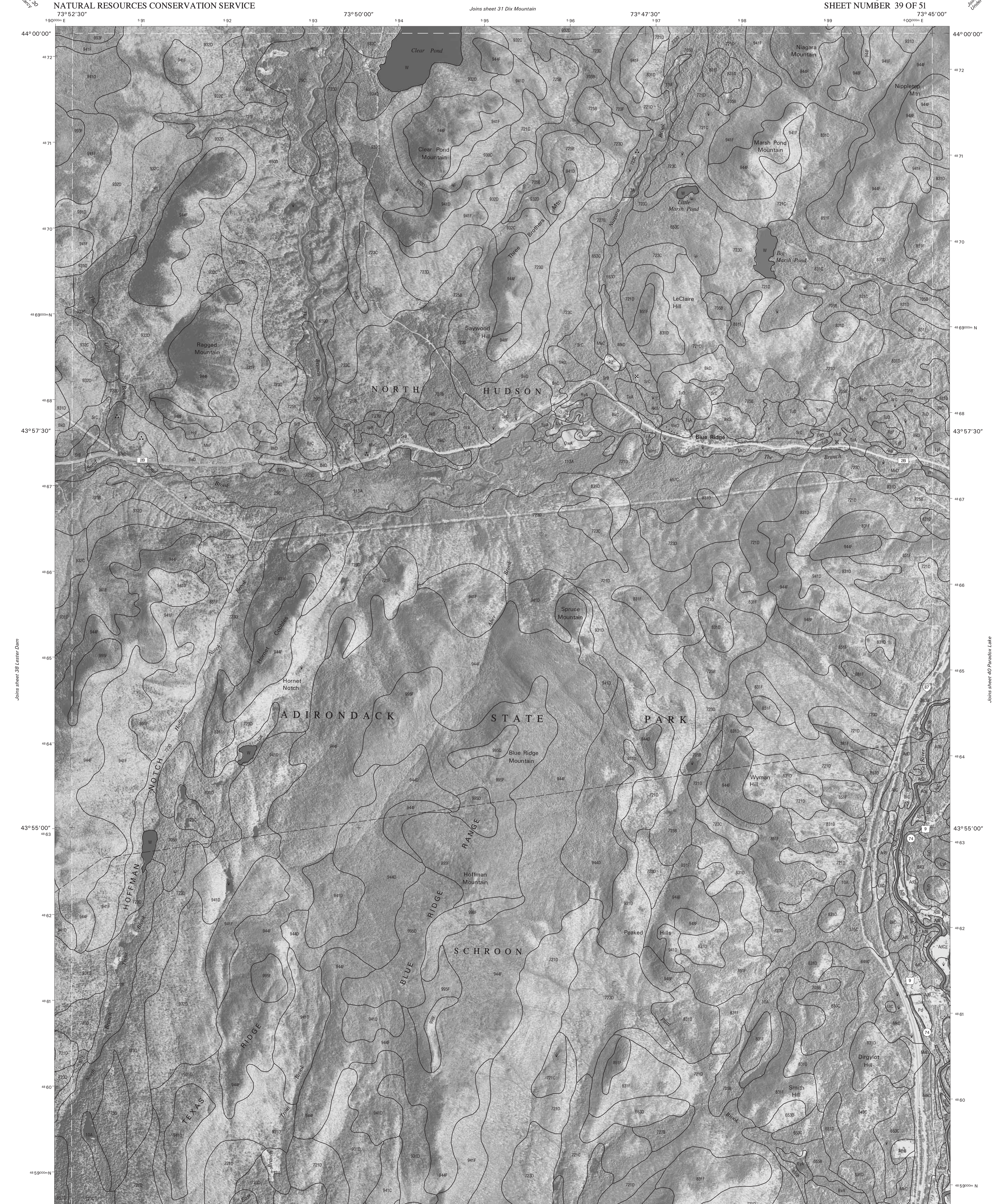
INDEX TO ADJOINING 7.5 MAPS

LESTER DAM, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 38 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

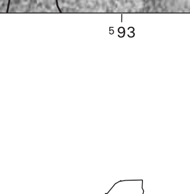
ESSEX COUNTY, NEW YORK
BLUE RIDGE QUADRANGLE
SHEET NUMBER 39 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

30	31	32
38		40
46	47	48

30 MOUNT MARCY
31 DIX MOUNTAIN
32 UNDERWOOD
38 LESTER DAM
40 PARADOX LAKE
46 MINERVA
47 SCHROON LAKE
48 PHARAOH MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

BLUE RIDGE, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 39 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
BLOOMINGDALE QUADRANGLE
SHEET NUMBER 4 OF 51

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83), GRS80 Spheroid
1000-meter ticks: Universal Transverse Mercator, zone 18.
Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

INDEX TO ADJOINING 7.5 MAPS

3 GABRIELS
5 FRANKLIN FALLS
11 SARANAC LAKE
12 MCKENZIE MOUNTAIN
13 LAKE PLACID

BLOOMINGDALE, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 4 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

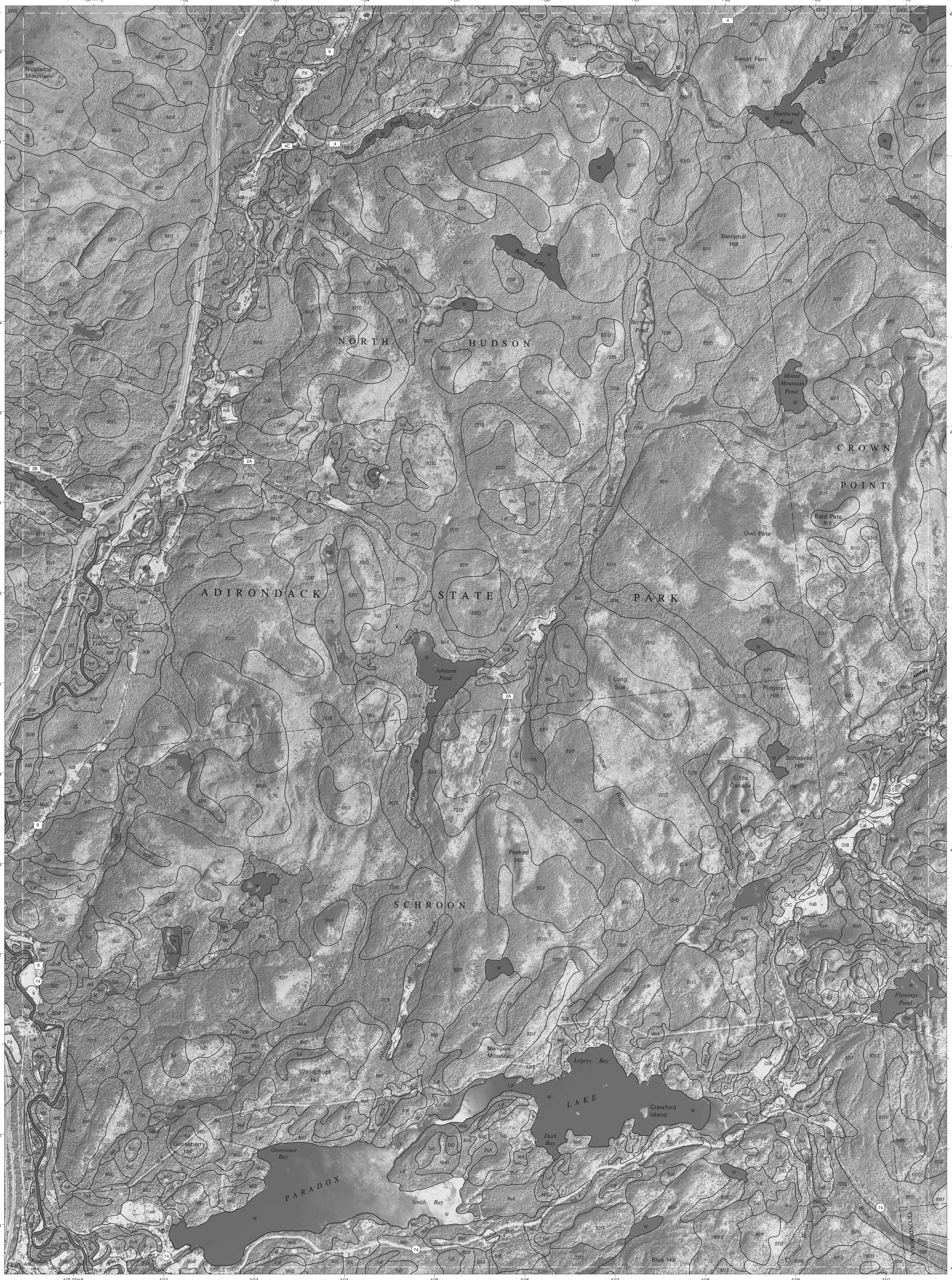
Joins sheet 31 Dix Mountain

Joins sheet 32 Underwood

Joins sheet 33 Witherbee

73° 45′00″ 73° 42′30″ 73° 40′00″ 73° 37′30″

44° 00′00″



43° 57′30″ 43° 55′00″ 43° 52′30″

Joins sheet 39 Blue Ridge

Joins sheet 41 Eagle Lake

Joins sheet 47 Schroon Lake

Joins sheet 48 Pharaoh Mountain

Joins sheet 49 Graphite

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

31	32	33
39		41
47	48	49

31 DIX MOUNTAIN
32 UNDERWOOD
33 WITHERBEE
39 BLUE RIDGE
41 EAGLE LAKE
47 SCHROON LAKE
48 PHARAOH MOUNTAIN
49 GRAPHITE

INDEX TO ADJOINING 7.5 MAPS

PARADOX LAKE, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 40 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
EAGLE LAKE QUADRANGLE
SHEET NUMBER 41 OF 51

Joins sheet 32 Underwood

Joins sheet 33 Witherbee

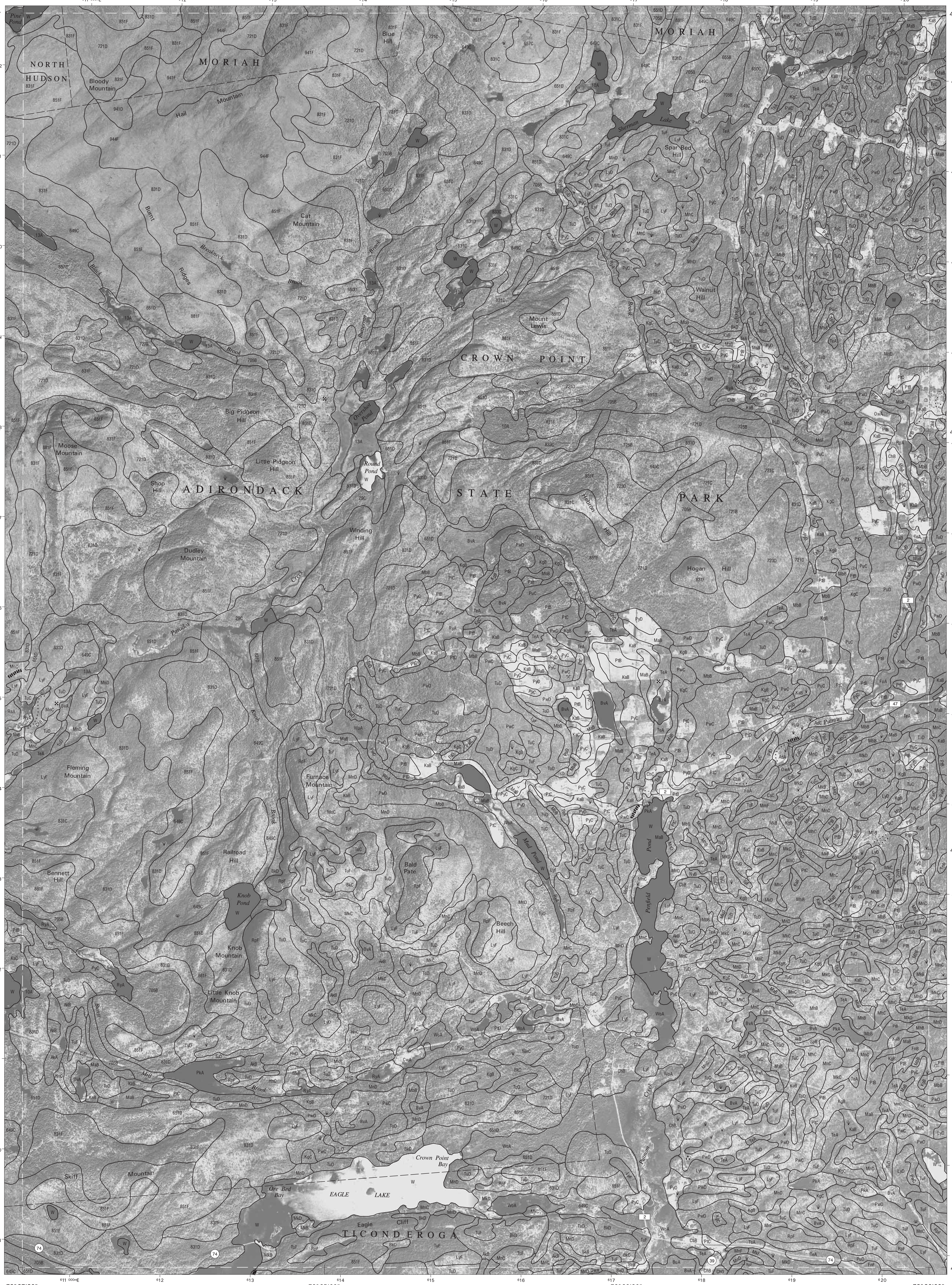
Joins sheet 34 Port Henry

Joins sheet 40 Paradox Lake

Joins sheet 42 Crown Point

73° 37′30″ 73° 35′00″ 73° 32′30″ 73° 30′00″

44° 00′00″ 43° 57′30″ 43° 55′00″ 43° 52′30″



Joins sheet 48 Pharaoh Mountain

Joins sheet 49 Graphite

Joins sheet 50 Ticonderoga

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

32	33	34
40		42
48	49	50

32 UNDERWOOD
33 WITHERBEE
34 PORT HENRY
40 PARADOX LAKE
42 CROWN POINT
48 PHARAOH MOUNTAIN
49 GRAPHITE
50 TICONDEROGA

INDEX TO ADJOINING 7.5 MAPS

EAGLE LAKE, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 41 OF 51

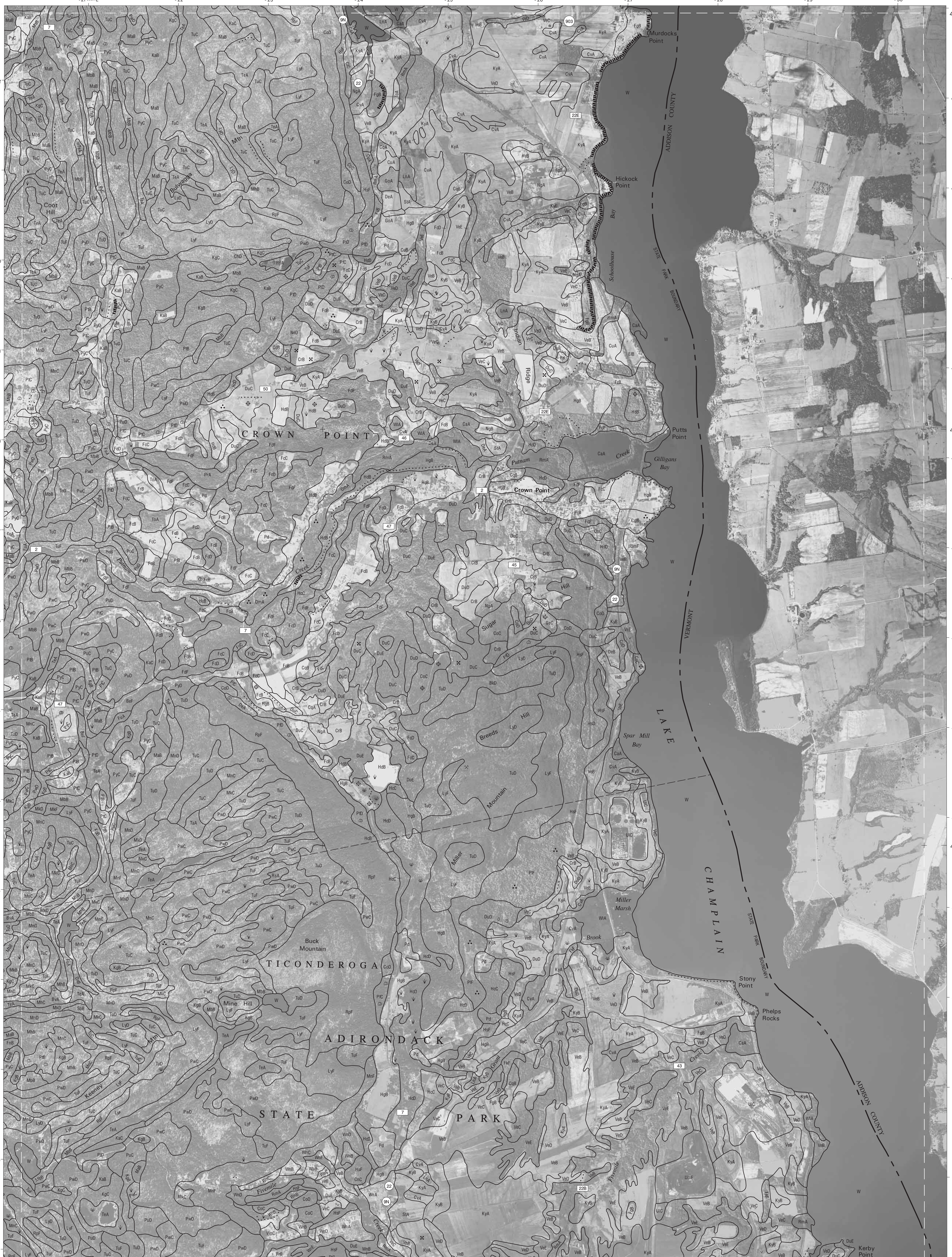
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
CROWN POINT QUADRANGLE
SHEET NUMBER 42 OF 51

Joins sheet 33 Witherbee

Joins sheet 34 Port Henry



Joins sheet 41 Eagle Lake

Joins sheet 50 Ticonderoga

Joins sheet 49 Graphite

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

33	WITHERBEE
34	PORT HENRY
41	EAGLE LAKE
49	GRAPHITE
50	TICONDEROGA

INDEX TO ADJOINING 7.5 MAPS

CROWN POINT, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 42 OF 51

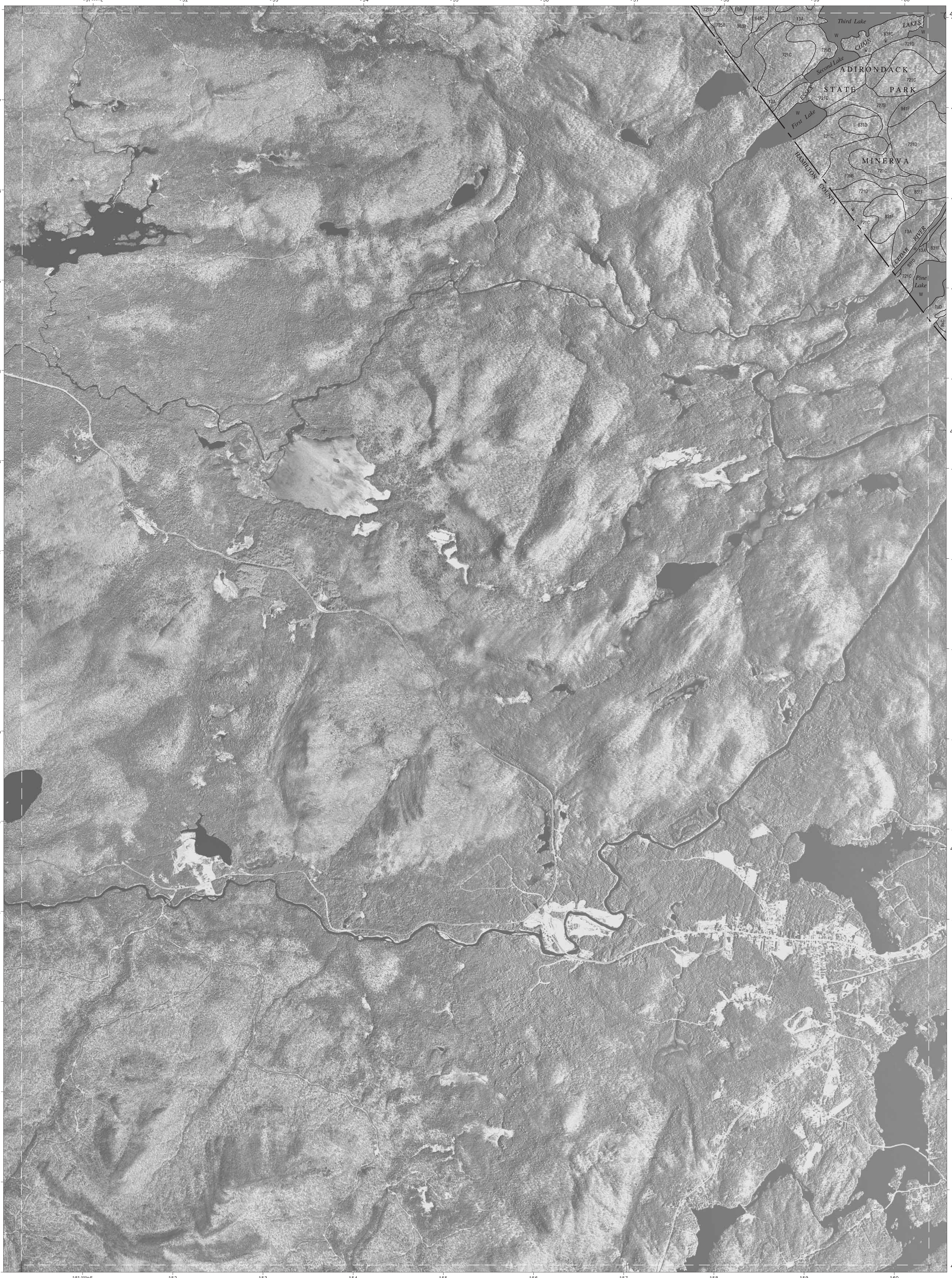
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
BURGESS MOUNTAIN QUADRANGLE
SHEET NUMBER 43 OF 51

Joins sheet 35 Dunbrook Mountain

Joins sheet 36 Newcomb



Joins sheet 44 Bad Luck Mountain

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

	35	36
		44

35 DUNBROOK MOUNTAIN
36 NEWCOMB
44 BAD LUCK MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

BURGESS MOUNTAIN, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 43 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
BAD LUCK MOUNTAIN QUADRANGLE
SHEET NUMBER 44 OF 51

Joins sheet 35 Dunbrook Mountain

Joins sheet 36 Newcomb

Joins sheet 37 Vanderwhacker Mountain

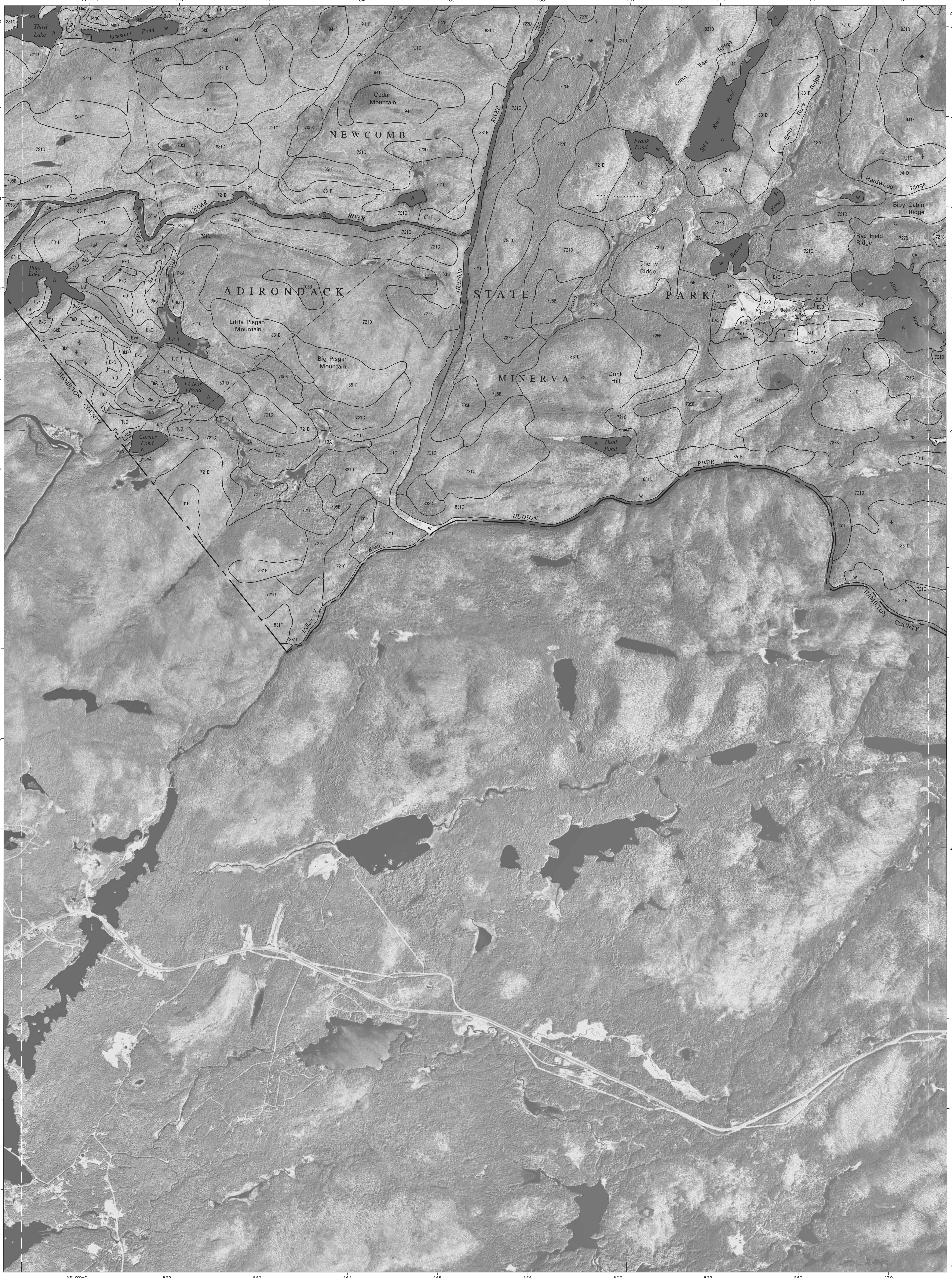
Joins sheet 43 Burgess Mountain

Joins sheet 45 Starbuck Mountain

Joins sheet 51 Gore Mountain

74°15′00″ 74°12′30″ 74°10′00″ 74°07′30″

43°52′30″ 43°50′00″ 43°47′30″ 43°45′00″



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

35	36	37
43		45
		51

35 DUNBROOK MOUNTAIN
36 NEWCOMB
37 VANDERWHACKER MOUNTAIN
43 BURGESS MOUNTAIN
45 STARBUCK MOUNTAIN
51 GORE MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

BAD LUCK MOUNTAIN, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 44 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
STARBUCK MOUNTAIN QUADRANGLE
SHEET NUMBER 45 OF 51

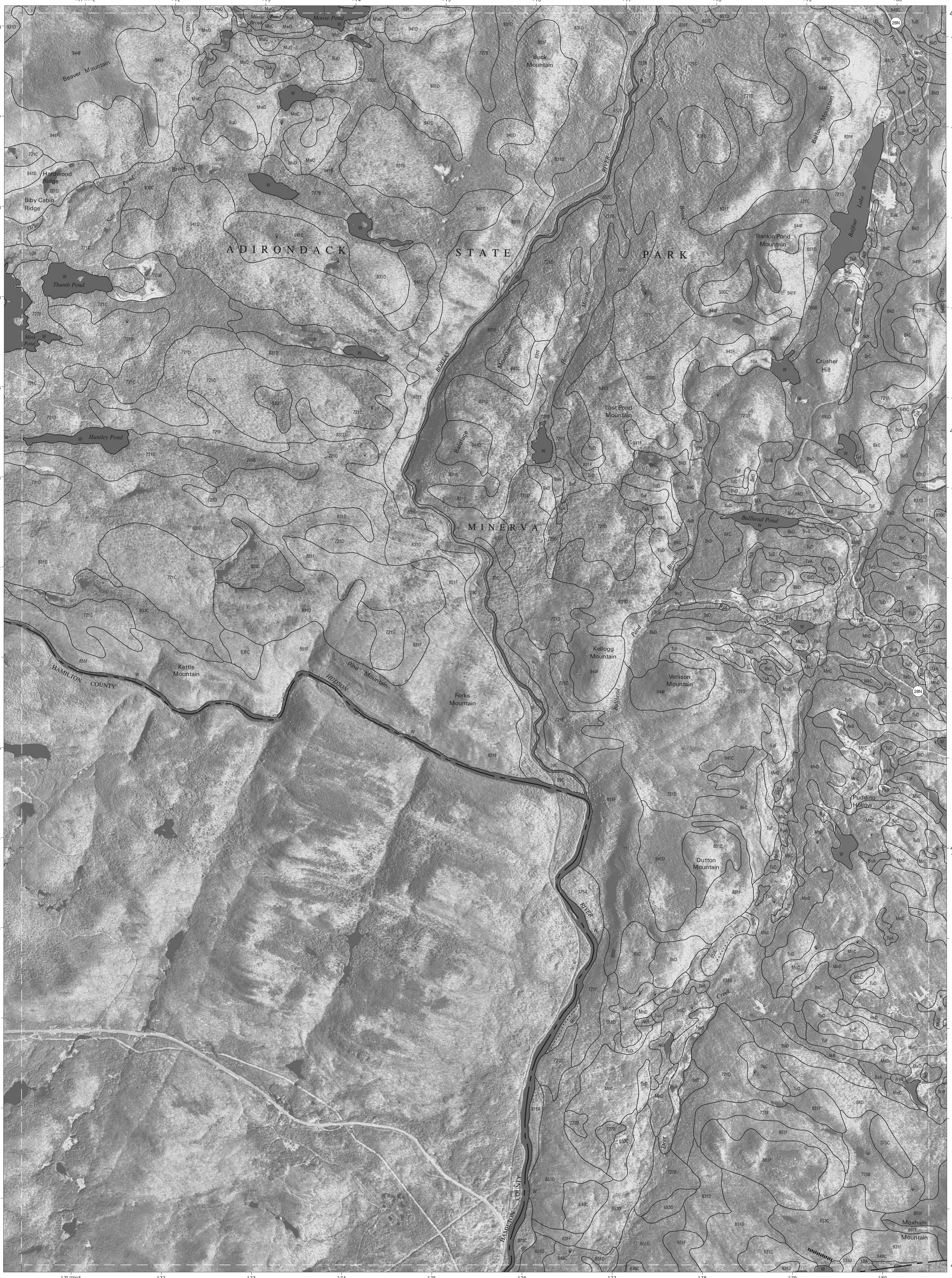
Joins sheet 36 Newcomb

Joins sheet 37 Vanderwhacker Mountain

Joins sheet 38 Lester Dam

Joins sheet 44 Bad Luck Mountain

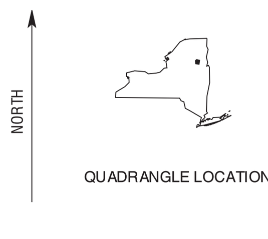
Joins sheet 46 Minerva



Joins sheet 51 Gore Mountain

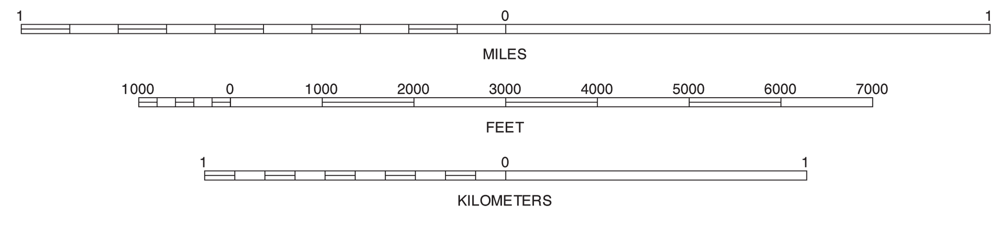
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION

SCALE 1:24000



36	37	38	36 NEWCOMB 37 VANDERWHACKER MOUNTAIN 38 LESTER DAM
44		46	44 BAD LUCK MOUNTAIN 46 MINERVA
	51		51 GORE MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

STARBUCK MOUNTAIN, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 45 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
MINERVA QUADRANGLE
SHEET NUMBER 46 OF 51

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

37	38	39
45		47
51		

37 VANDERWHACKER MOUNTAIN
38 LESTER DAM
39 BLUE RIDGE
45 STARBUCK MOUNTAIN
47 SCHROON LAKE
51 GORE MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

MINERVA, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 46 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

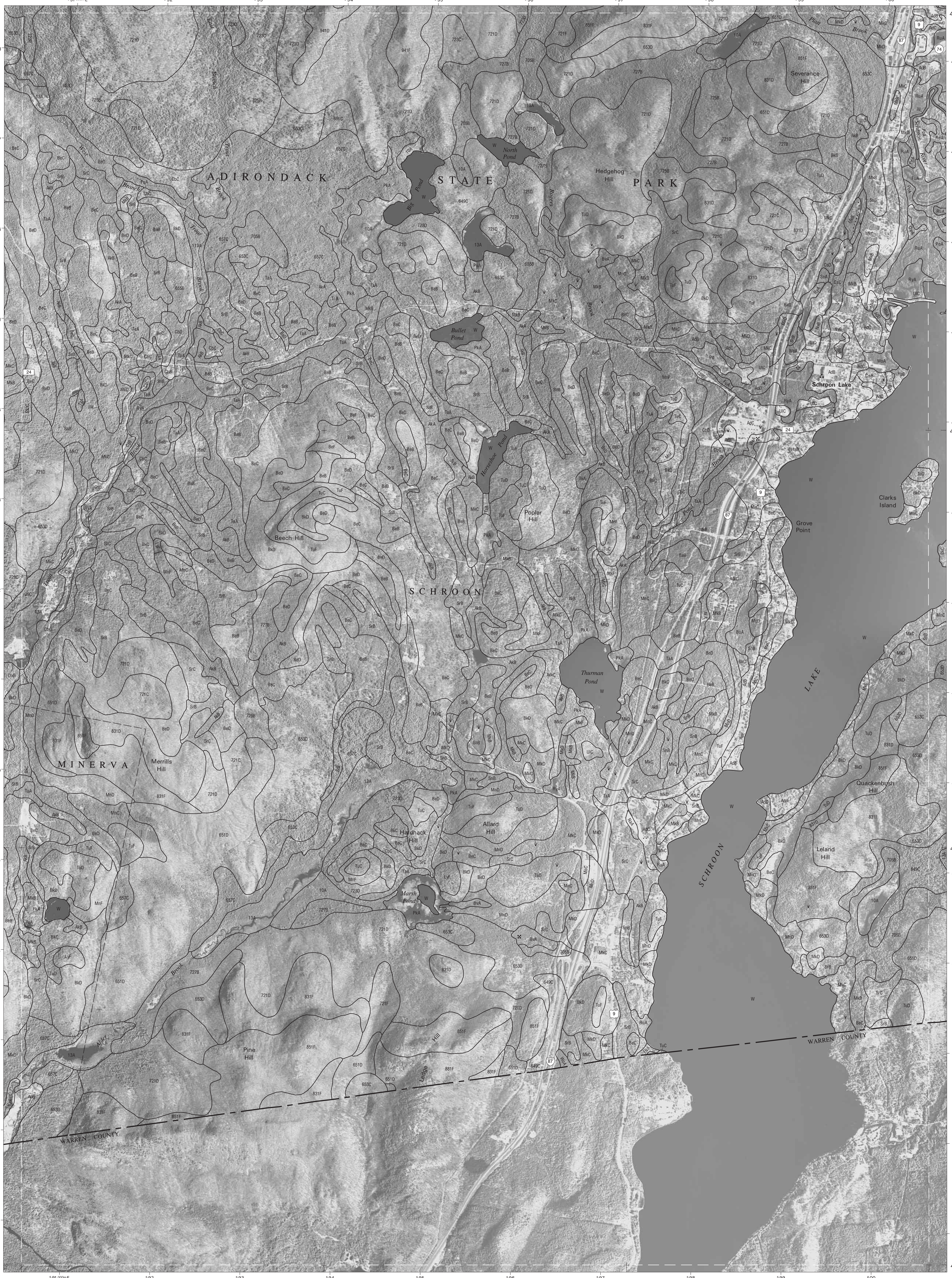
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
SCHROON LAKE QUADRANGLE
SHEET NUMBER 47 OF 51

Joins sheet 38 Lester Dam

Joins sheet 39 Blue Ridge

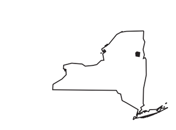
Joins sheet 40 Paradox Lake



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

SCALE 1:24000

1 0 1 MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 1 KILOMETERS

38	39	40
46		48

38 LESTER DAM
39 BLUE RIDGE
40 PARADOX LAKE
46 MINERVA
48 PHARAOH MOUNTAIN

INDEX TO ADJOINING 7.5 MAPS

SCHROON LAKE, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 47 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
PHARAOH MOUNTAIN QUADRANGLE
SHEET NUMBER 48 OF 51

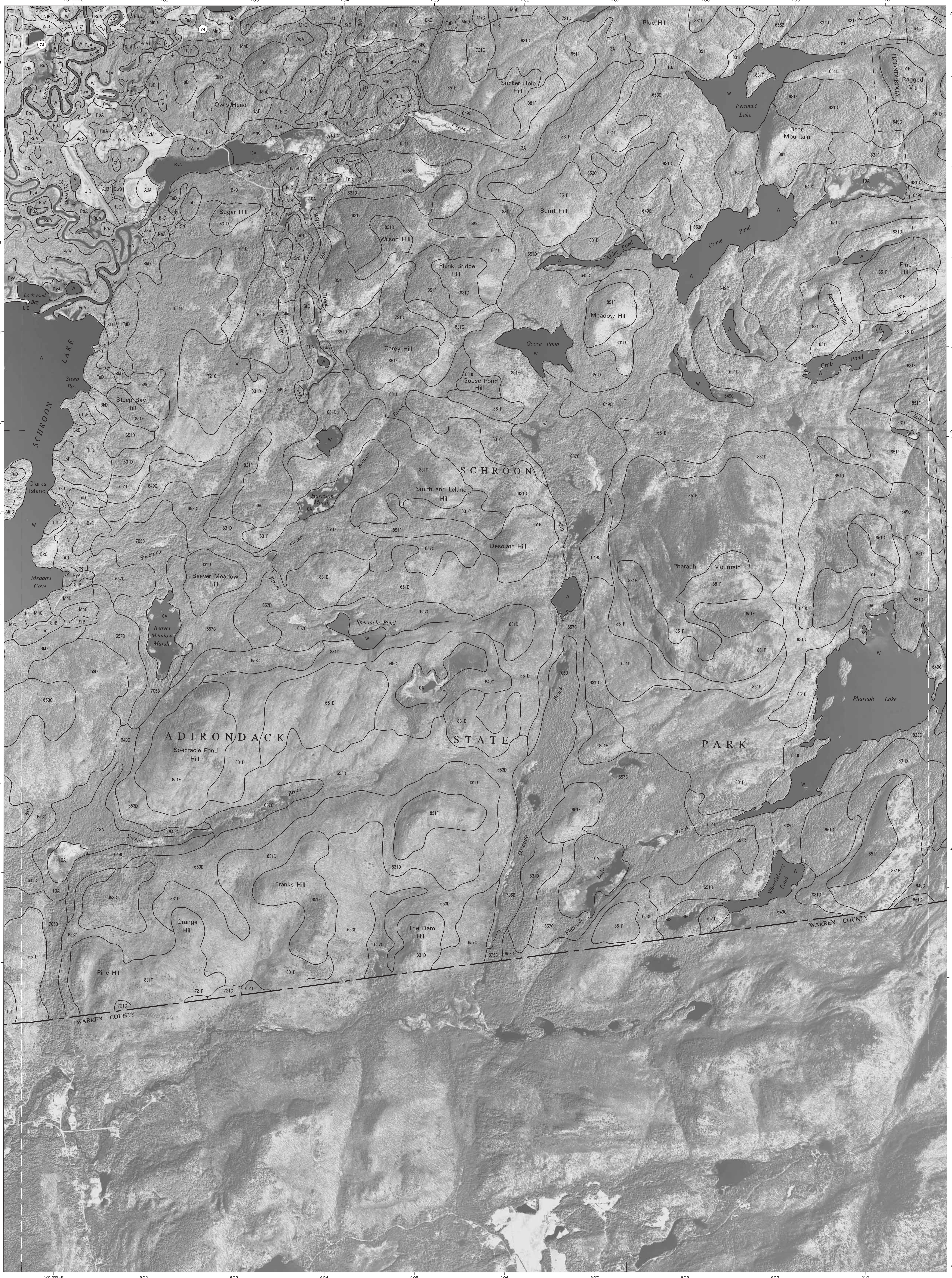
Joins sheet 39 Blue Ridge

Joins sheet 40 Paradox Lake

Joins sheet 41 Eagle Lake

Joins sheet 47 Schroon Lake

Joins sheet 49 Graphite



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

39	40	41
47		49

39 BLUE RIDGE
40 PARADOX LAKE
41 EAGLE LAKE
47 SCHROON LAKE
49 GRAPHITE

INDEX TO ADJOINING 7.5 MAPS

PHARAOH MOUNTAIN, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 48 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
GRAPHITE QUADRANGLE
SHEET NUMBER 49 OF 51

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

40	41	42
48		50

40 PARADOX LAKE
41 EAGLE LAKE
42 CROWN POINT
48 PHARAOH MOUNTAIN
50 TICONDEROGA

INDEX TO ADJOINING 7.5 MAPS

GRAPHITE, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 49 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

INDEX TO ADJOINING 7.5 MAPS

4 BLOOMINGDALE
6 WILMINGTON
12 MCKENZIE MOUNTAIN
13 LAKE PLACID
14 KEENE

FRANKLIN FALLS, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 5 OF 51

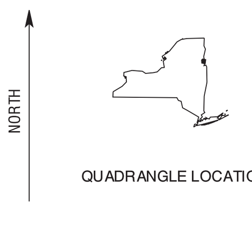
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

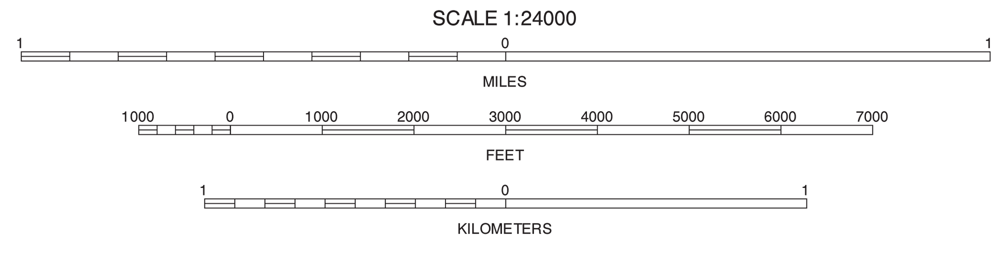
ESSEX COUNTY, NEW YORK
TICONDEROGA QUADRANGLE
SHEET NUMBER 50 OF 51

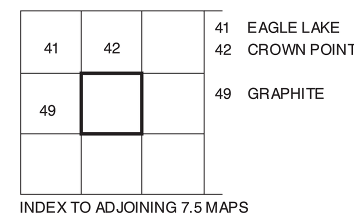
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



SCALE 1:24000





INDEX TO ADJOINING 7.5 MAPS

TICONDEROGA, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 50 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
GORE MOUNTAIN QUADRANGLE
SHEET NUMBER 51 OF 51

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

1 0 1
MILES

1000 0 1000 2000 3000 4000 5000 6000 7000
FEET

1 0 1
KILOMETERS

44	45	46

44 BAD LUCK MOUNTAIN
45 STARBUCK MOUNTAIN
46 MINERVA

INDEX TO ADJOINING 7.5 MAPS

GORE MOUNTAIN, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 51 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
WILMINGTON QUADRANGLE
SHEET NUMBER 6 OF 51

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

5		7	
13	14	15	

5 FRANKLIN FALLS
7 AU SABLE FORKS
13 LAKE PLACID
14 KEENE
15 JAY MOUNTAIN

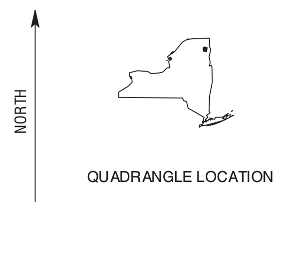
INDEX TO ADJOINING 7.5 MAPS

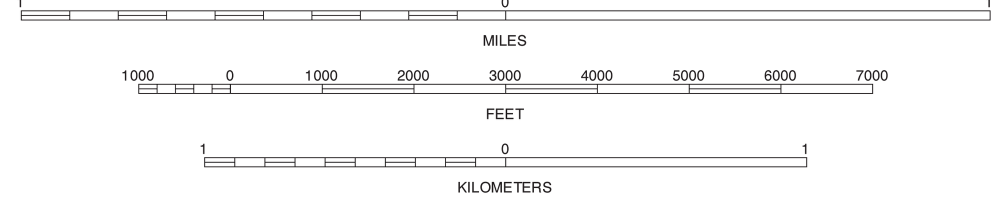
WILMINGTON, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 6 OF 51

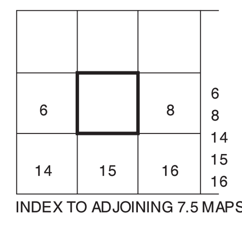
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.







6 WILMINGTON
8 CLINTONVILLE
14 KEENE
15 JAY MOUNTAIN
16 LEWIS

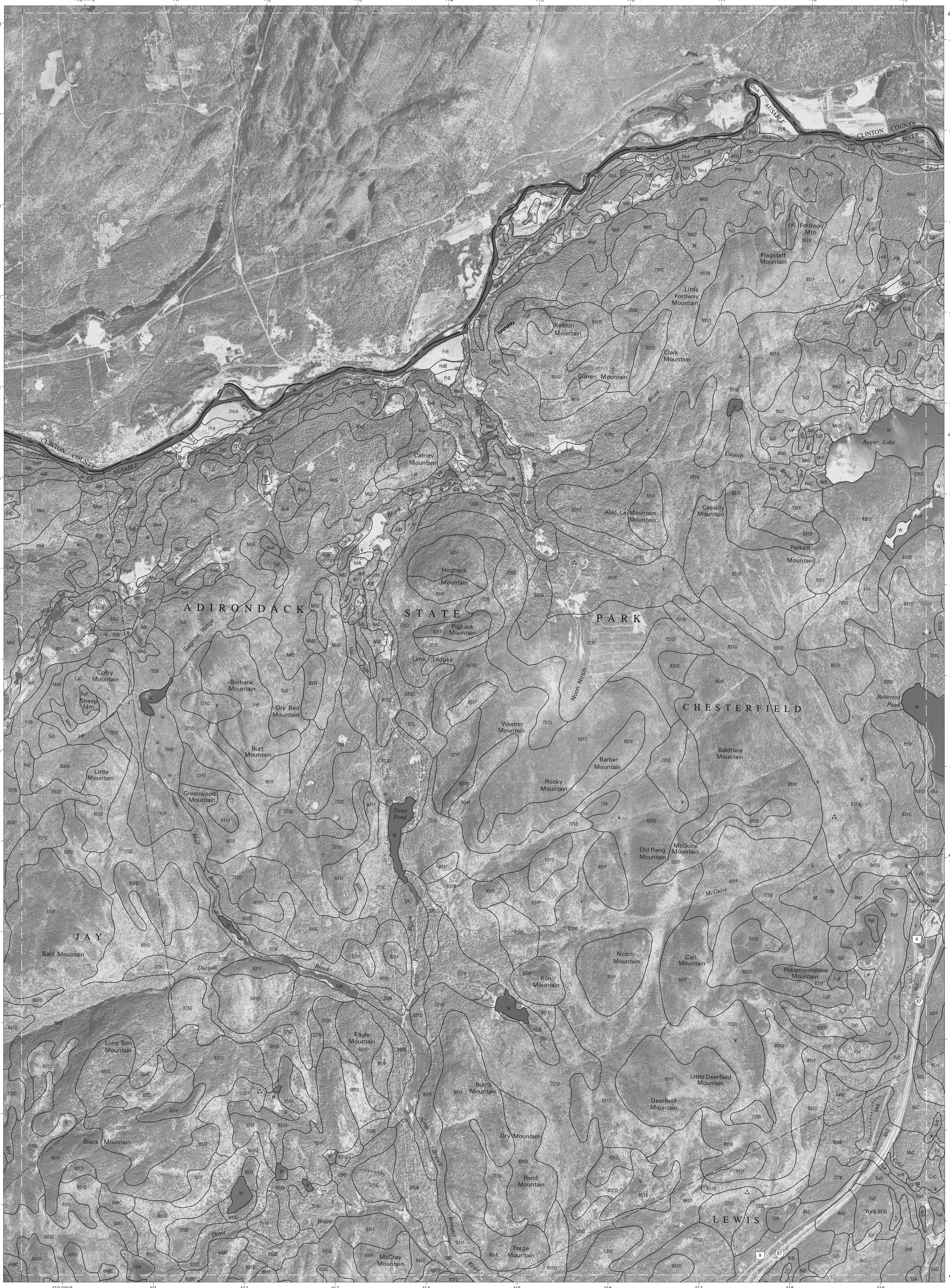
INDEX TO ADJOINING 7.5 MAPS

AU SABLE FORKS, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 7 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
CLINTONVILLE QUADRANGLE
SHEET NUMBER 8 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

INDEX TO ADJOINING 7.5 MAPS

1 KEESEVILLE
7 AU SABLE FORKS
9 PORT DOUGLAS
15 JAY MOUNTAIN
16 LEWIS
17 WILLSBORO

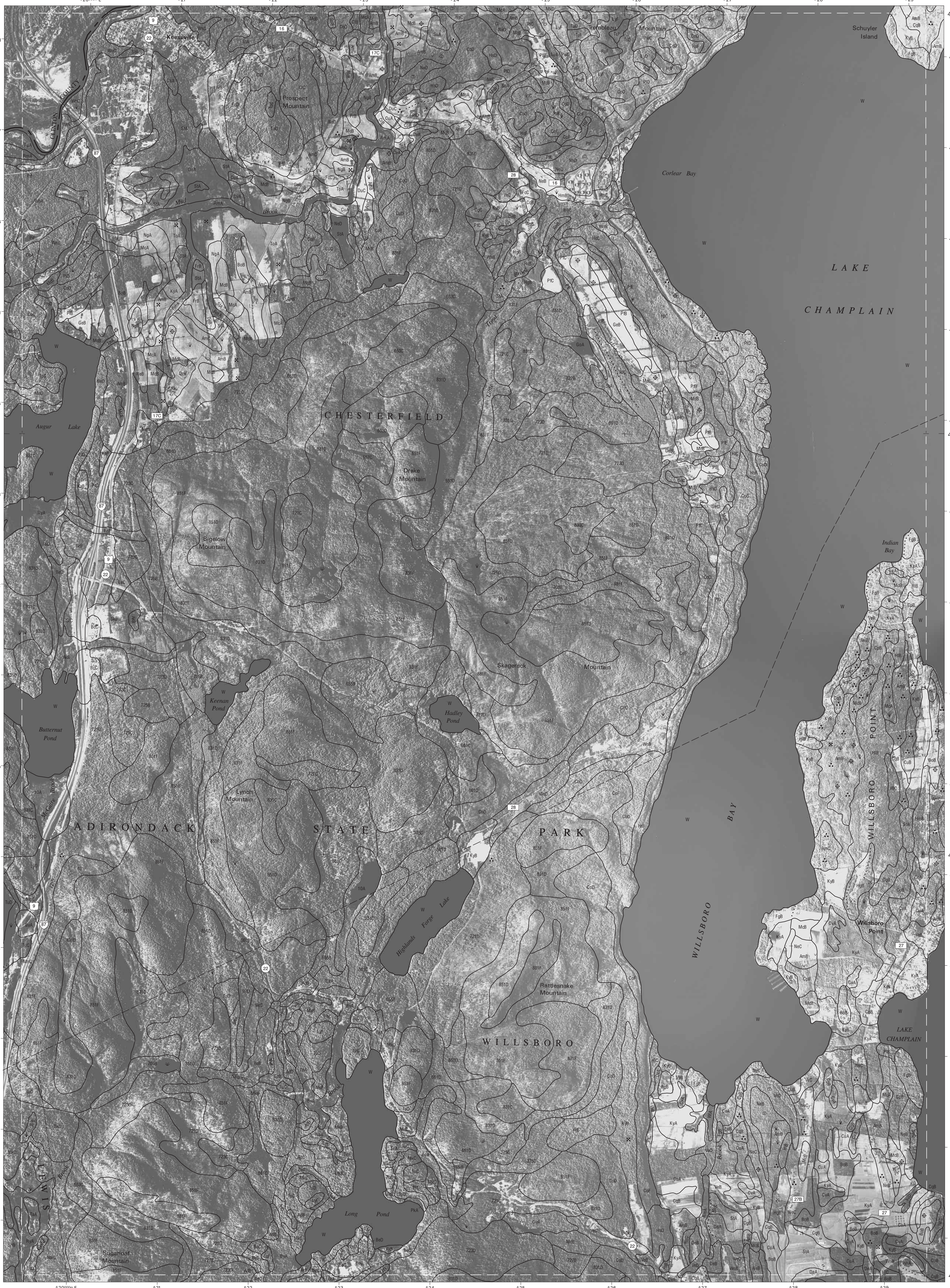
CLINTONVILLE, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 8 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ESSEX COUNTY, NEW YORK
PORT DOUGLAS QUADRANGLE
SHEET NUMBER 9 OF 51



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1994-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

	1	2
8		10
16	17	18

1 KEESEVILLE
2 COLCHESTER POINT
8 CLINTONVILLE
10 JUNIPER ISLAND
16 LEWIS
17 WILLSBORO
18 CHARLOTTE

INDEX TO ADJOINING 7.5 MAPS

PORT DOUGLAS, NEW YORK
7.5 MINUTE SERIES
SHEET NUMBER 9 OF 51

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.